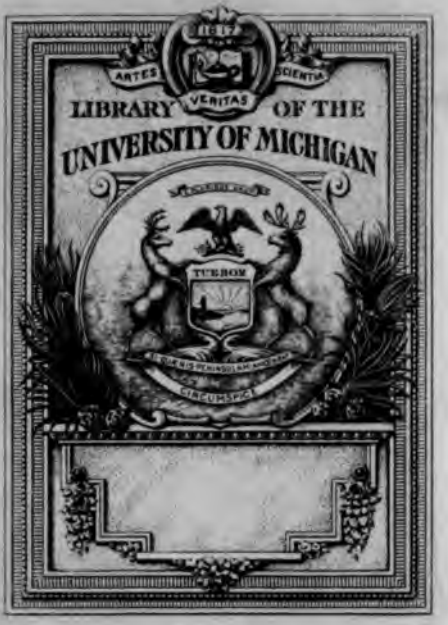
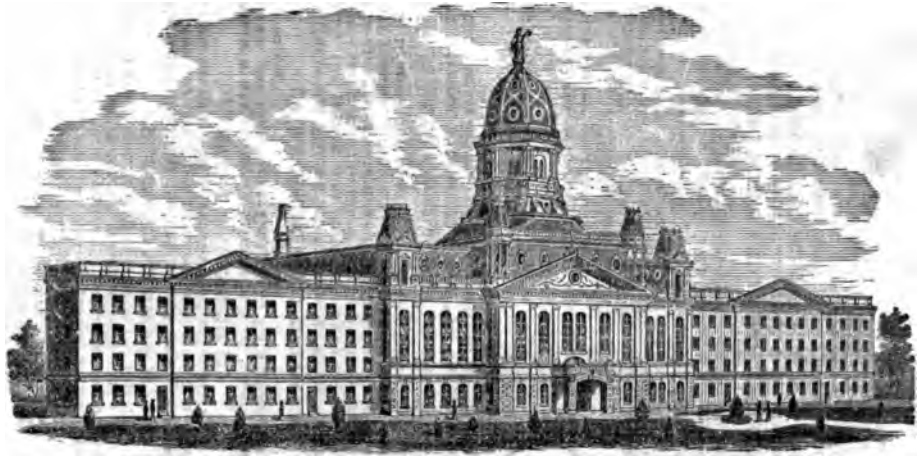
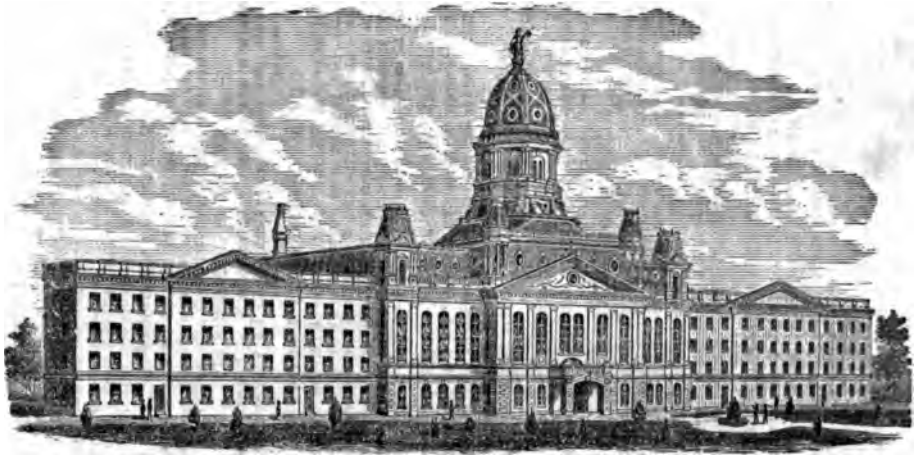


DR. CHASE'S STEAM PRINTING-HOUSE, R. A. BEAL, PROPRIETOR, 39, 41 & 43 N. MAIN ST., ANN ARBOR, MICH.



MICHIGAN UNIVERSITY HALL.

DR. CHASE'S STEAM PRINTING-HOUSE, R. A. BEAL, PROPRIETOR, 39, 41 & 43 N. MAIN ST., ANN ARBOR, MICH.



MICHIGAN UNIVERSITY HALL.

REASONS WHY

Everybody Should Have Dr. Chase's Recipe Book as Improved by the Publisher.

EVERY HOUSEKEEPER NEEDS IT,

To know how to wash, to cook, to preserve, to brew, to keep the house clean and sweet, to know how to color in modern style and newest colors, to understand household management and economy, and for its practical "Hints on Housekeeping."

EVERY MOTHER NEEDS IT,

To understand and provide for the care, dress, management, and bringing up of children; to understand and cure the diseases peculiar to childhood; and for the "Advice to Mothers," which should make the RECIPE BOOK a welcome friend to every mother and family in the land.

EVERY WOMAN NEEDS IT,

For its plain and practical treatment and cure of all female complaints and irregularities; to know how to care for the sick; and for its "Management of the Sick Room," and advice to them especially.

EVERY MAN NEEDS IT,

To know how to act promptly in all kinds of "Accidents and Emergencies," and for its 2,000 invaluable Recipes in its various Departments, upon almost every subject.

EVERY YOUNG LADY NEEDS IT,

For its "Hints upon Etiquette;" to know to dress becomingly; to know how to beautify the person and complexion; to know how to soften and whiten the skin and hands; to know how to promote the growth and beauty of the hair; to know how to remove superfluous hair, or make it curl; to know how to remove freckles, pimples, and blotches; to know how to remove sun burn and tan; to know how to make perfumes, pomade, tooth-wash, hair oils etc., etc.

EVERY YOUNG MAN NEEDS IT,

For its "Hints upon Personal Manners;" for its "Rules for the Preservation of Health;" for its advice and counsels upon habits, business, etc.

EVERY SICK PERSON NEEDS IT,

To know how to regain their health, and for its priceless recipes and cures for almost all kinds of sickness and disease.

EVERY WELL PERSON NEEDS IT,

To know how to preserve their health, and for its rules for the prevention of sickness and promotion of health.

EVERY FARMER NEEDS IT,

For its complete Farrier Department, which has no superior; to know how to manage Bees, and for hundreds of recipes especially in his line, which he will have almost daily occasion to use or refer to.

EVERY MECHANIC NEEDS IT,

As blacksmiths, tinners, gunsmiths, jewelers, cabinet makers, tanners painters, barbers, shoe and harness makers, for its recipes and advice in these various branches of industry.

THE YOUNG FOLKS AND CHILDREN NEED IT,

For its "Counsels to the Young," and its amusements and indoor games.

EVERY FAMILY NEEDS IT,

As a household work, to consult upon almost every conceivable subject; with its 2,000 practical recipes for almost everything and everybody; to consult upon all the leading diseases of man, woman, or child, as it points out in plain language the symptoms cause, and cure; to consult upon all matters of housekeeping, cooking, coloring, etc.; to consult in all cases of accidents, of poisoning, burns, scalds, bruises, cuts, bites, wounds, etc.; to consult upon a thousand other things of every-day occurrence; in short, as a Family Guide and Physician.

To, conclude, every person should have it, whether young or old, married or single, whether farmer, mechanic, or professional, as a book to refer to in a thousand matters of daily occurrence, as it will not only save you many dollars, but perhaps life itself, and will add to your comfort, pleasure and happiness.

Carefully examine the "Index" of the Recipe Book, which you will find in this Circular, which will show you more fully the character and worth of the Book, and the various subjects treated of, and see if *you* do not *need* it, or if two dollars could be expended more satisfactorily, and if you can afford to be without it.

DR. CHASE'S RECIPES;

OR,

INFORMATION FOR EVERYBODY:

AN INVALUABLE COLLECTION OF ABOUT EIGHT HUNDRED

PRACTICAL RECIPES

FOR

Merchants, Grocers, Saloon-Keepers, Physicians, Druggists, Tanners, Shoemakers, Harness Makers, Painters, Jewelers, Blacksmiths, Tinners, Gunsmiths, Farriers, Barbers, Bakers, Dyers, Renovators, Farmers, and Families Generally.

WITH

A Rational Treatment of Pleurisy, Inflammation of the Lungs, and other Inflammatory Diseases, and also for General Female Debility and Irregularities.

BY A. W. CHASE, M. D.

"WE LEARN TO LIVE, BY LIVING TO LEARN."

GREATLY ENLARGED AND IMPROVED BY THE PUBLISHER,

WHO HAS ADDED

Appendices to the Medical, Saloon, Farriers', Barbers' and Toilet, Bakers' and Cooking, Miscellaneous, and Coloring Departments, and also Several New Departments, viz.:

"Advice to Mothers," "Rules for the Preservation of Health," "Accidents and Emergencies," "Hints upon Etiquette and Personal Manners," "Hints on Housekeeping," "Amusements for the Young," and "Bee-Keeping."

ALL ARRANGED IN THEIR APPROPRIATE DEPARTMENTS, WITH A COPIOUS INDEX.

PUBLISHED BY R. A. BEAL,
ANN ARBOR, MICH.:
TO WHOM ALL ORDERS SHOULD BE ADDRESSED.
1888.

LAWS OF COPYRIGHT.

The exclusive benefits of Copyrights extend to twenty-eight years then renewable for fourteen years, if the Author is dead, to the heirs, by re-recording, and advertising the re-record for four weeks in any newspaper in the United States.

The forfeiture of all the books, and the plates on which the same shall be copied, and a penalty of one dollar for each sheet of the work found in his possession—half to the United States and half to the Author—is the penalty for publishing or importing any work without the written consent of the Author; and also liable to the Author or proprietor for damages.

Entries must be made in the office of the Librarian of Congress at Washington, who is entitled to a fee of fifty cents for recording the title of each book, and fifty cents in addition for each certificate of copyright under seal of the office.

Twenty-third New and Enlarged Edition. Two Hundred and Thirty-second Thousand.
Seven Hundred and Forty Thousand Small Edition.

PUBLISHER'S PREFACE.

The publisher of "Dr. Chase's Recipes; or, Information for Everybody," while claiming that the Recipe Book as it is now published, is the most complete, comprehensive, and valuable work of the kind in print, recognizes the fact that science and research are constantly adding to our knowledge, and as it is his earnest desire to keep his book up with the times and useful to Individual Families and the Public generally, has Revised and Enlarged the book, sparing no expense of time or money, having himself twice crossed the Atlantic to procure from the wisdom and experience of the old world information upon some particular subjects, to not only make the "Recipe Book" the best of its kind, but also the best deserving of public patronage. Great care has been observed in selecting our information, and in the Medical department many of the Recipes are more precious than rubies, they are priceless and will doubtless prove a blessing to many families. The publisher has adopted the "reformed practice" of medicine,* and the additions to the Medical department are the result of long experience in practice of some of the most scientific physicians of modern times. The publisher has added an appendix to the Saloon, Medical, Farrier's, Barbers' and Toilet, Bakers' and Cooking, Miscellaneous, and Coloring Departments, and in order to distinguish the new matter has marked it "Appendix by the Publisher," to the several departments to which it is attached, and has further added as an appendix several new departments, viz.: "Rules for the Preservation of Health," "Accidents and Emergencies," "Hints upon Etiquette and Personal Manners," "Hints on Housekeeping," "Amusements and Indoor Games for the Young," "Advice to Mothers," "Cold Water Cure," "Rules for the Dress, Care, and Bringing up of Children," and "Bee-Keeping." If among the thousands of readers of this work any one should hastily pronounce these pages confused and ill-arranged, let them refer to the "Index" and forever hold their peace, and let it always be borne in mind that the "Index" is the knocker to the door of knowledge, and will enable you to refer in a *moment* to almost anything you may require.

Agents wanted everywhere. Persons wishing to engage in the sale of the Book should address the publisher for Private Circulars and Terms.

R. A. BEAL, Publisher,

Ann Arbor, Mich.

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*NOTE.—The publisher knowing that a great number still strongly adhere to the the "Old School" of Medicine, has for their particular benefit, under the head of "Prescriptions," and "A List of Useful Prescriptions," given a number of the best formulas of that system. Under the head of "Diseases" will be found how and when they can be used. Only a few of the prescriptions conflict with the "Reformed Practice," but each disease here mentioned is fully treated according to the "Reformed Practice" elsewhere under its proper head.

AUTHOR'S PREFACE

TO THE FIRST STEREOTYPED EDITION

In bringing a permanent work, or one that is designed so to be, before the public, it is expected of the author that he give his reasons for such publication. If the reasons are founded in truth, the people consequently seeing its necessity, will appreciate its advantages, and encourage the Author by quick and extensive purchases, they alone being the judges. Then—

FIRST.—Much of the information contained in "Dr. Chase's Recipes, or Information for Everybody," has never before been published, and is adapted to every-day use.

SECOND.—The Author, after having carried on the drug and grocery business for a number of years, read medicine, after being thirty-eight years of age, and graduated as a physician, to qualify himself for the work he was undertaking; for, having been familiar with some of the Recipes, adapted to these branches of trade, more than twenty years, he began in "Fifty-six," seven years ago, to publish them in a pamphlet of only a few pages, since which time he has been traveling between New York and Iowa, selling the work and prescribing, so that up to this time ("Sixty-three") over *twenty-three thousand copies* have been sold. His travels have brought him in contact with all classes of professional and business men, mechanics, farriers and farmers, thus enabling him to obtain from them many additional items always having had his *note-book* with him, and whenever a prescription has been given before him, or a remark made, that would have a *practical* bearing, it has been *noted*, and at the first opportunity *tested*, then, if good, written out in *plain* language expressly for the next edition of this work. In this way this mass of information has been collected, and ought to take away an objection which some persons have raised: "It is too much for one man to know!"—because they did not realize that the work had been made up from *others*, as well as the Author's *actual every-day experience*, instead of from *untried* books. Yet from the nature of some of the Recipes, one has occasionally found its way into some of the earlier editions, which has needed revision, or to be entirely dropped. This, with a desire to add to the various Departments at every edition, has kept us from having it stereotyped until the present tenth edition.

But now, all being what we desire, and the size of the work being such that we cannot *add* to it without increasing the price, we have it stereotyped and send it out, just what we expect, and are willing it should remain.

THIRD.—Many of the recipe-books published are very large, containing much *useless* matter, only to increase the number, consequently costing too much. This one contains only about eight hundred recipes, upon only about four hundred different subjects, *all* of which are valuable in daily, practical life, and at a very reasonable price. Many of them are without arrangement This one is arranged in regular Departments, all of a class being together Many of them are without remark or explanation. This one is fully explained, and accompanied with remarks upon the various subjects introduced by the Recipes under consideration. Those remarks, explanations and suggestions accompanying the Recipes are a special feature of *this* work, making it worth double its cost as a *reading* book, even if there was not a prescription in it.

FOURTH.—The remarks and explanations are in *large* type, whilst the *prescriptive* and *descriptive* parts are in a little smaller type, which enables any one to see at a glance just what they wish to find.

FIFTH.—It is a well known fact that many unprincipled persons go around "gulling" the people by selling single recipes for exorbitant prices The Author found a thing, calling himself a man, in Battle Creek, Mich selling a washing-fluid recipe for two dollars, which he obtained of some; but if he could not obtain that, he would take two *shillings*, or any other sum between them. A merchant gave a horse for the "White Cement" recipe. The late Mr. Andrews, of Detroit, Mich., gave *three hundred dollars* for a recipe now improved and in this work, to cure a bone spavin upon a race mare of his. He removed the spavin with it, and won the anticipated wager with her The Author has himself paid from twenty-five to fifty and seventy-five cents and one to two, three, five, and eight dollars for single items, or recipes, he

ing thereby to improve his work, but often finding that he had much *better* ideas embodied therein.

The amount *paid* for information in *this* work, and for testing by experiment, together with traveling expenses, and cuts used in illustrating it, has reached over two thousand dollars, and all for the purpose of making a book worthy to be found in "Everybody's" library, and to prevent such extortions in the *price* of recipes. Yet any single recipe in the work which a person may wish to *use*, will often be found worth *many* times the price of the book, perhaps the *lives* of those you dearly love, by having at hand the necessary information, enabling you to *immediately* apply the means within your reach, instead of giving time for disease to strengthen, whilst sending, perhaps miles, for a physician. Much pain and suffering, also, will often be saved or avoided, besides the satisfaction of *knowing* how many things are made which you are constantly *using*, and also being able to avoid many things which you *certainly* would *avoid* if you *knew* how they were made.

SIXTH.—It will be observed that we have introduced a *number* of recipes upon some of the subjects. This adapts the work to all circumstances and places. The reason for it is this: we have become acquainted with them in our practice and journeyings, and know that when the articles cannot be obtained for one way, they may be for some other way; as also that one prescription is better for some than for other persons; therefore, we give the variety, that all may be benefited as much as possible. For instance, there are twenty different prescriptions for different diseases and conditions of the eye; there are also a dozen different liniments, etc., etc.; yet the Author feels well assured that the most perfect satisfaction will be experienced in them as a whole. And although it could not be expected that special advantages of particular recipes could be pointed out to any great extent, yet the Author must be indulged in referring to a few, in the various Departments. All, or nearly all, merchants and grocers, as also most families, will be more or less benefited by the directions for making or preserving butter, preserving eggs, or fruit, computing interest, making vinegar, and keeping cider palatable, etc. In ague sections of country none should be without the information on this subject; and, in fact, there is not a medical subject introduced but what will be found more or less valuable to every one. Even physicians will be more than compensated in its perusal; whilst consumptive, dyspeptic, rheumatic, and fever patients ought, by all means, to avail themselves of the advantages here pointed out. The treatment in Female Debility, and the observations on the changes in female life, are such that every one of them over thirteen or fourteen years of age should not be without this work. The directions in Pleurisy and other inflammatory diseases cannot fail to benefit every family into whose hands the book shall fall.

The Good Samaritan Liniment, we do not believe, has its equal in the world, for common uses, whilst there are a number of other liniments equally well adapted to particular cases. And we would not undertake to raise a family of children without our Whooping Cough Syrup and Croup Remedies, knowing their value as we do, if it cost a hundred dollars to obtain them. Tanners and shoemakers, painters and blacksmiths, tinners and gunsmiths, cabinet-makers, barbers, and bakers, will find in their various Departments more than enough, in single recipes, to compensate them for the expense of the work; and farriers and farmers who deal in horses and cattle, will often find that Department to save a hundred times its cost in single cases of disease.

A gentleman recently called at my house for one of the books, saying: "I have come ten miles out of my way to get it, for I staid over night with a farmer, who had one, and had been benefited more than twenty dollars, in curing a horse by its directions." A gentleman near this city says he had paid out dollars after dollars to cure a horse of spavin, without benefit, as directed by *other* books of recipes; but a few shillings, as directed by *this*, cured the horse. Another gentleman recently said to me: "Your Eye Water is worth more than twenty dollars." I could fill pages with similar statements which have come to my knowledge since I commenced the publication of this work, but must be content by asking all to look over our References, which have been voluntarily accumulating during the seven years in which the work has been in growing up to its present size and perfection; and the position in society of most of the persons making these statements is such—many of whom are entire strangers to the Author and to each other—that any person can see that no possible complicity could exist between us, even if we desired it.

Families will find in the Baking, Cooking, Coloring, and Miscellaneous Departments all they will need, without the aid of any other "Cook Book;" and the Washing Fluid, which we have used at every washing except two for nearly eight years, is worth to every family of eight or ten persons, ten times the cost of the book, yearly, saving both in labor and wear of clothes.

SEVENTH.—Many of the articles can be gathered from garden, field, or

woods, and the others will always be found with druggists, and most of the preparations will cost only from *one-half* to as low as *one-sixteenth* as much as to purchase them already made; and the only certainty, nowadays, of having a good article, is to make it yourself.

FINALLY.—There is one of two things *fact* about this book: It is the biggest humbug of the day; or it is the best work of the kind published in the English language. If a careful perusal does not satisfy *all* that it is *not the first*, but that it *is the last*, then will the Author be willing to acknowledge that testing, experimenting, labor, travel, and study are of no account in qualifying a man for such a work, especially when that work has been the long cherished object of his life, for a lasting benefit to his fellow creatures, saving them from *extortion* in buying single recipes, and also giving them a reliable work, for every emergency, *more* than for his own peculiar benefit. Were it not so, I should have kept the work smaller, as heretofore—for the eighth edition of two hundred and twenty-four pages, when handsomely bound, sold for one dollar, as now; but in this edition you get a dollar's worth of *book*, even in common reading matter, besides the most reliable *practical* information, by which you will *often* save, not only *dollars* and *cents*, but relieve *suffering* and prolong *life*. It is, in fact, a perfect mass of the most valuable methods of accomplishing the things spoken of, an Encyclopœdia upon the various branches of science and art treated of in the work, which no family can afford to do without—indeed, young and old, "Everybody's" book. And the "taxes" nor "times" should be, for a moment, argued against the purchase of so valuable a work, *especially when we assure you that the book is sold only by Traveling Agents, that all may have a chance to purchase; for if left at the book-stores, or by advertisement only, not one in fifty would ever see it.*

Some persons object to buying a book of recipes, as they are constantly receiving so many in the newspapers of the day; but if they had all that this book contains, scattered through a number of years of accumulated papers, it would be worth *more* than the price of this work to have them gathered together, carefully arranged in their appropriate departments, with an alphabetical index, and handsomely bound; besides the advantage of their having passed under the Author's carefully *pruning* and *grafting* hand.

"To uproot error and do good should be the first and highest aspiration of every intelligent being. He who labors to promote the physical perfection of his race—he who strives to make mankind intelligent, healthy, and happy—cannot fail to have reflected on his own soul the benign smiles of those whom he has been the instrument of benefiting." The Author has received too many expressions of gratitude, thankfulness, and favor, in relation to the value of "Dr. Chase's Recipes, or Information for Everybody," to doubt in the least the truth of the foregoing quotation; and trusts that the following quotation may not be set down to "egotism" or "bigotry," when he gives it as the *governing* reason for the continued and permanent publication of the work:

"I live to *learn* their story, who suffered for my sake;
To emulate their glory, and follow in their wake;
Bards, patriots, martyrs, sages, and nobles of all ages,
Whose deeds crown History's pages, and Time's great volume make.

"I live for those who love me, for those who know me true;
For the heaven that smiles above me, and awaits my spirit too;
For the cause that lacks assistance, for the wrong that needs resistance,
For the future in the distance, and the *good* that I can do."

May these reasons *speedily* become the governing principles throughout the world, especially with all those who have taken upon themselves the vows of our "Holy Religion," *knowing* that it is to those *only* who begin to love God and right actions, *here*, with whom the glories of heaven shall ever *begin*. Were they thus heeded, we should no longer need corroborating testimony to our statements. Now, however, we are obliged to array every point before the people, as a *mirror*, that they may judge *understandingly*, even in matters of the most vital importance to themselves; consequently we must be excused for this lengthy Preface, explanatory Index, and extended References following it. Yet, that there are some who will let the work go by them as one of the "humbugs of the day," notwithstanding all that has or might be said, we have no doubt; but we beg to refer such to the statement amongst our References, of the Rev. C. P. Nash, of Muskegon, Mich., who, although he allowed it thus to pass him, could not rest satisfied when he saw the *reliability* of the work, purchased by his *less incredulous* neighbors. Then if you *will*, let it go by; but it is hoped that all *purchasers* may have sufficient confidence in the work not to allow it to lie idle; for, that the designed and greatest possible amount of good shall be accomplished by it, it is only necessary that it should be *generally introduced, and daily used*, is the positive knowledge of

THE AUTHOR.

REFERENCES.

Extracts from Certificates and Diplomas in the Doctor's Possession Connected with his Study of Medicine.

"I hereby certify that A. W. Chase has prosecuted the study of medicine, under my instruction, during the term of two years, and sustains a good moral character.

(Signed) O. B. REED, Physician.

Belle River, Mich."

University of Michigan,
College of Medicine and Surgery.

This certifies that A. W. Chase has attended a full Course of Lectures in this Institution. (Signed) SILAS H. DOUGLAS, Dean.

University of Michigan, Ann Arbor."

"Eclectic Medical Institute, Cincinnati, Ohio.

Know all men by these presents, that A. W. Chase has sustained an honorable examination before the Faculty of this Institute, on all the departments of Medical Science, etc. * * * Wherefore we, the Trustees and Faculty * * by the authority vested in us by the Legislature of the State of Ohio, do confer on him the degree of Doctor of Medicine.

WM. B. PIERCE, President.
W. T. HURLBERT, Vice-President.

CAS. G. HENSHALL, Secretary.

(SEAL) Signed also by seven Professors, embracing the names of Scudder, Bickley, Freeman, Newton, Baldridge, Jones, and Saunders.

ANN ARBOR REFERENCES.

The following statements are given by my *neighbors*, to whom I had sent the eighth edition of my "Recipes," asking their opinions of its *value* for the people, most of whom had previously purchased earlier editions of the work, and several of them used many of the recipes; and surely their *position* in society must place their statements above all suspicion of *complicity* with the author in palming off a worthless book: but are designed to *benefit the people by increasing the spread of genuine practical information*:

Hon. Alpheus Felch, one of our first lawyers, formerly a Senator in Congress, and also ex-Governor of Michigan, says:—Please accept my thanks for the copy of your 'Recipes," which you were so good as to send me. The book seems to me to contain *much valuable practical information*, and I have no doubt will be extensively useful.

A. Winchell, Professor of Geology, Zoölogy, and Botany, in the University of Michigan, and also State Geologist, says:—I have examined a large number of recipes in Dr. Chase's published collection, and from my knowledge, either experimental or theoretical, of many of them, and my confidence in Dr. Chase's carefulness, judgment, and conscientiousness in the selection of such only as are proved useful, after full trial, I feel no hesitation in saying that they may all be received with the utmost confidence in their practical value, except in those cases where the Doctor has himself qualified his recommendations.

Rev L D Chapin pastor of the Presbyterian Church, says:—Allow me to express to you my gratification in the perusal of your book. I do not regard myself as qualified to speak in regard to the whole book, for you enter into departments in which I have no special knowledge, but where I understand the subject I find many things of much practical value for every practical man and housekeeper; and judging of those parts which I do not, by those which I do understand, I think that you have furnished a book that most families can afford to have at any reasonable price.

Rev. George Smith, Presiding Elder of the M. E Church, Ann Arbor, says:—I take pleasure in saying that so far as I have examined, I have reason to believe that your Recipes are genuine, and *not* intended as a *catch-penny*, but think any person purchasing it will get the worth of their money.

Rev. Geo. Taylor, Pastor of Ann Arbor, and Dixboro M. E. Church, writes as follows:— As per your request, I have carefully examined your book of Recipes, recently published, and take pleasure in adding my testimony to the many you have already received, that I regard it as the best compilation of recipes I have ever seen. Several of these recipes we have used in our family for years, and count each of them worth the cost of your book.

Elder Samuel Cornelius, Pastor of the Baptist Church, writes:—I have looked over your book of "Information for Everybody," and as you ask my judgment of it, I say that it gives evidences of much industry and care on the part of the compiler, and contains information which must be valuable to all classes of business men in town and country, and especially to all families who want to cook well, and have pleasant, healthy drinks, syrups, and jellies—who wish to keep health when they enjoy it, or seek for it in an economical way. I thank you for the copy you sent me, and hope you may make a great many families healthy and happy.

Rev. F. A. Blades, of the M. E. Church, and Paster in charge, for two years of Ann Arbor Station, says:—Dr. Chase: Dear Sir,—Your work of Recipes I have examined, and used some of them for a year past. I do not hesitate to pronounce it a valuable work, containing information for the million. I hope you will succeed in circulating it very generally. It is worthy a place in every house.

This gentleman speaks in the highest terms of the "Dyspeptic's Biscuit and Coffee," as of other recipes used.

Eberbach & Co., Druggists, of Ann Arbor, say:—We have been filling prescriptions from "Dr. Chase's Recipes," for three or four years, and freely say that we do not know of any *dissatisfaction* arising from want of correctness; but, on the other hand, we know that they give *general* satisfaction.

Rev. S. P. Hildreth, of Dresden, O., a former neighbor, enclosing a recent letter, says:—I have carefully examined your book, and regard it as containing a large amount of information which will be valuable in every household.

Rev. William C. Way, of the M. E. Church, Plymouth, Mich., says:— I have cured myself of Laryngitis, (inflammation of the throat,) brought on by long continued and constant public speaking by the use of Dr. Chase's black oil, and also know a fever sore to have been cured upon a lady by the use of the same article.

OPINIONS OF THE ANN ARBOR PRESS.

A NEW BOOK.—Dr. Chase of this city, has laid on our table a new edition of his work, entitled "Dr. Chase's Recipes; or, Information for Everybody" for making all sorts of things, money not excepted. We would not however, convey the idea that the Doctor tells you how to make spurious coin, or counterfeit bills, but by practicing upon the maxims laid down in this work, money making is the certain result. Buy a book and adopt the recipes in your households on your farms, and in your business, and success is sure to follow. The work is neatly printed, elegantly bound, and undoubtedly embodies more useful information than any work of the kind now before the public Students, or others, wishing to engage in selling a *saleable* work will do well to send for circulars describing the book, with terms to agents, etc., for it is indeed a work which "Everybody" ought to have.—*Michigan State News, Ann Arbor.*

Dr. A. W. Chase, of this city, has placed on our table a copy of his "Recipes; or Information for Everybody." Beginning with a small pamphlet, the Doctor has swelled his work to a bound volume of about 400 pages; an evidence that his labors are appreciated. The volume furnishes many recipes and much information of real practical value.—*Michigan Argus, Ann Arbor.*

DR. CHASE'S RECIPES.—The ninth edition of Dr. Chase's Recipes has been recently published, revised, illustrated, and enlarged comprising a very large collection of practical information for business men, mechanics artists farmers, and for families generally. The recipes are accompanied with explanations and comments which greatly increase the value of the work, It is a handsomely bound volume. —*Ann Arbor Journal.*

Dr Chase, of Ann Arbor, has favored us with a copy of Recipes which he has published, * * * * who claims that they have been made up from his own and others' every-day experience. There is certainly a great many useful recipes in this work that might be found to richly repay its cost to any family.—*Michigan Farmer, Detroit.*

OPINIONS OF THE PEOPLE—STRANGERS.

Rev. C. P. Nash, of Muskegon, Mich., writes:—Dr. Chase: Dear Sir,—Some time since, one of your agents canvassed our town for your "Book of Recipes," but thinking it, perhaps, one of the humbugs of the day, I neglected my opportunity to procure one. The books, however, were sold to our neighbors about us, and my wife borrowed one in order to test a few of its recipes. She found them all genuine, so far as she tried them and now very much regrets that we did not procure one. She considers them invaluable.

The object of this note is to inquire whether we can procure one by sending you the necessary funds. If so, we will send by return of mail, upon receipt of your answer. If not can you, and will you be so kind as to inform us where and how we can procure one. P. S.—Enclosed please find a *directed and pre-paid* envelope, for you reply.

Frederick Bues. Vinegar Manufacturer, of Freeport, Ill., says:—Dr. Chase's plan of making vinegar is purely scientific, and I am making it with entire success.

J. M. Chase, Canedea, N. Y., says:—Your vinegar is all right. More than forty men tested it last Saturday, and they, to a man, say it is the best and pleasantest they ever saw.

J Clark, of Conneautville, Pa., said to me he had made $500 in four months, from the vinegar recipe.

L. Weber, grocer, of Crestline, O., says, May 26, 1859:—I purchased Dr. Chase's book about a year ago, and have made and sold the vinegar at a profit of about $40 on nine barrels. These statements refer to the "Vinegar in Three Days, without Drugs."

H. W. Lord and B. Fox, grocers, of Pontiac, Mich., say:—We have kept eggs two years, by Dr. Chase's process, as good as when put down.

L. Howard, hotel keeper, (of the firm of Kimbal & Howard,) Waverly House, Elgin, Ill., says:—We used eggs in June of this year, which were laid down in May of last year, by a plan just the same as Dr. Chase's, and they were just as good as fresh eggs, and as clean and nice in every way.

Wm. Buss, of the firm of Robinson & Co., grocers, of Erie, Pa., says—I have tried a recipe similar to Dr. Chase's egg preserving recipe, for several years with perfect success, and freely recommend it to any one wishing to deal in eggs.

John A. Vanhorn, merchant, of Marshall, Mich., says:—I have been acquainted with Dr Chase's plan of keeping eggs for five years, and know that it will keep them as nice as fresh eggs.

T. L. Stevens, merchant, of Paw Paw, Mich., says that he is acquainted with the same thing, and knows that it is good.

Chapel & Graves, grocers, at Ottawa, Ill., say they paid $10 for the egg preserving recipe. I know two men, one of whom paid $100 and the other $125, for a part only of the vinegar recipes.

Howbret & Fallor, druggists, of Bucyrus, Ohio, say:—Dr. Chase's Red Ink is superior to Harrison's Columbian Ink, and also that his Burning Fluid can have no superior.

Miller & Davis, bankers, Ann Arbor, Mich., say:—We have tried Dr. Chase's Common Ink, and find it a good article

Robert Heany, Jr., druggist, of Hendrysburg, O., says:—I have tried several of your recipes and so far find them good. The Eye-Water gives good satisfaction; the Good Samaritan takes the place of all other liniments in the shop; the Green Mountain Salve takes well for plasters, and Mead's Sovereign Ointment is doing for me what no other medicine has done, it is curing a sore on my back which has baffled all applications for more than two years. One doctor called it tetter, another erysipelas. It began like a ring-worm, and slowly spread, with the most intolerable itching. It is now nearly well with only two weeks' use of the ointment.

Dr. A. S. Witter, Eclectic physician, of Battle Creek, Mich., says:—Either of Dr. Chase's preparations for the Ague is worth double what he asks for the whole list of recipes.

Prof. A. H. Platt, M. D., of Antioch College, Yellow Springs, O, says:—To the Medical Profession: This certifies that the recipe in Dr. Chase's Collection, for the cure of Uterine Hemorrhage, is original with me, and has been in my practice for nearly twenty years, without a single failure.

L S. Hodgkins, of Reading, Mich., says:—I have cured my wife of Cancer of four years' standing, with one of Dr Chase's cancer cures. I know it has cured others also.

W. J. Cook, M D., of Mendota, Ill. says:—I have examined Dr. Chase's recipes, and find two or three worth more than he asks for the whole collection.

T. W Church, dentist, of Coldwater, Mich., says:—I have been acquainted with Dr. Chase and his book of Recipes for about two years. All I have tested are found to be practical; and his prescription for my father, in paralysis, was found to be more effectual in giving relief than that of any other physician.

The editor of the Ann Arbor *Local News* says:—We have thoroughly examined the work published by A. W. Chase, M D., entitled "Dr. Chase's Recipes," and believe it to be a most valuable book for everybody. There is not, in our opinion, a single recipe contained in it that is not of great practical use.

N S. Reed, harness maker, of Mansfield, O., says:—I have used Dr. Chase's Varnish Blacking for Harness over three years, and say it is the best I ever used.

J. & D. Minich, tanners, of Bucyrus, O., say:—We are using Dr. Chase's tanning and finishing recipes with good satisfaction.

Mrs. Morris, of Lima, near Ann Arbor, Mich., says:—I am using Dr. Chase's Washing Fluid, and have found it to be a very valuable recipe, and I would not do a washing without its aid for *half* the price of the book, weekly

Stephen Allen, of Adrian, Mich. says:—We have used A. W. Chase's Washing Fluid for two years, and my wife says she would not do without it for $10 a year, and it does not injure the clothes, but saves all bleaching.

Jacob Schoen, of East Saginaw, Mich., says:—The recipe of Dr. Chase's Washing Fluid is genuine, and like the same which I manufactured and sold for nine years in Vienna, the capital of Austria, in Europe.

H. W. Donnelly, postmaster of Parma, Mich., says:—My family have used a preparation in washing for ten years, similar to Dr. Chase's, and we know it to be practical and valuable. He said to a farmer, who asked his opinion of the book, buy one, says he—that recipe alone is worth the whole price, a dozen times.

The editor of the *Country Gentleman* says of the Washing Fluid, from several years' experience, that clothes not only wash easier, but look better, and last fully as long as when washed in the old way.

The Author knows that shirts will last twice as long, for the board-rubbing wears them out faster than body wear, and as two-thirds of that rubbing is saved, the wear is of course saved.

Gideon Howell, of Oramel, N. Y., says:—I have drank cider two years old, (kept by one of Dr. Chase's recipes,) as good as when put up, and did not cost one-fourth of a cent per barrel to prepare it.

Sheldon Bebee, a farmer, of Cary, Ohio, says:—I put away cider in November, by one of Dr. Chase's recipes, to preserve cider, and it is now, in March, as good as when first made.

Messrs. J. W. Bell & P. Mower, blacksmiths, of New Vienna, O., August 11, 1859, say:—Dr. A. W. Chase: Dear Sir,—We have tried your process for re-cutting Files, and are happy to say to you that it works well; and we desire you also to send us the recipe for welding Cast-Steel without borax, which was forgotten when we obtained the other. [I sold to them before these recipes were printed in the book.]

John Miser, blacksmith, of Washington, Ohio, says, June 20th, 1859:—Dr. Chase tried his File-Cutting Process in my shop last night, and I am satisfied that it is a good thing, and have purchased his book.

Wm. Russell, blacksmith, of Princeton, Ind., says, May 7, 1860:—I purchased Dr Chase's book of recipes this afternoon, and have tested the recipe for tempering Mill Picks, to my perfect satisfaction, and also of the miller who used them. They cut glass also, very nicely.

J. Kinneman, miller in Union Mills, Union, Pa., says:—August 20, 1860, Mr. Todd, a blacksmith of this place, put one dollar in my hands to be given to Dr. Chase, if his Mill-Pick Tempering recipe gave satisfaction upon test; and the Doctor gained the money.

G. C. Schofield, of Conneautville, Pa., says:—After using Wood's Hair Restorative without benefit, I have now a good head of hair from using a Restorative similar to Dr Chase's, and I know his to be a superior article.

O. B. Bangs, of Napoleon, Mich., says:—Dr. Chase: Dear Sir,—Allow me to say, by using your Hair Restorative once a day for two weeks, gave me a beautiful dark head of hair in place of a silver-gray which had been my companion for years; and although I have not now used it in four months, yet my hair retains its beautiful dark appearance, and is soft and pliable as in youth. If it was used once a day for two weeks, and then two or three days only, every two months, no gray hair would ever appear. The expense of it is so very trifling, also, no one would feel it, as 3½ pints cost only from 25 to 30 cents.

T. Shaw, cabinet maker, of Westfield, N. Y., says:—I have used Dr. Chase's preparation in finishing furniture, about five years, and know it is good and better than any other thing I have used in thirty-five years.

Jonathan Higgins, a farmer, of West Union, Adams county, O., says:—I have used Dr. Chase's treatment for Cholic in horses for the last 12 to 15 years, with perfect success, and also on myself with as perfect satisfaction; and my wife says she likes Mrs Chase's Buck-wheat Short-cake better than the griddle cake, and it is not half the trouble to make it.

A. French, of Jackson, O., says:—Having cured many horses of Spavin and Bighead with a preparation similar to Dr. Chase's Ring-bone and Spavin Cure, I am free to say that this recipe is worth more than the whole price of the book to all who are dealing in horses. It also cures curbs, callouses, inflammations, etc., etc., and this I know from twenty years experience in staging.

J. M. Lowry, of Pomeroy, O., says:—I have successfully treated more than 25 cases of bots, with Dr. Chase's remedy for that disease.

W. W. Robbins, of Millwood, O., says:—I purchased one of Dr. Chase's books about two years ago, and have used a number of the recipes, and I find all I have tried give entire satisfaction; and I now want your last edition.

E. L. Burton, a glove manufacturer, at Gloversville, N. Y., says:—I have never known any preparation for removing paint from clothes equal to Dr. Chase's Renovating Mixture, From experience.

Hiram Sisson an old farrier and farmer, of Crown Point, Essex county, N. Y., says:—I have used Dr. Chase's Kitridge and Green Ointments for several years, on human flesh and on horses, in bruises and deep sores, with better success than any other preparation which I have ever used, and know they are no humbug, but are worthy of very great confidence.

Hiram Storms, dyer and manufacturer, at Ann Arbor. August 6, 1859, says:—I have examined and revised Dr. Chase's Coloring recipes, and am satisfied that they are practical and good. I have also furnished him with some valuable recipes in that line.

"Dr. Chase's Recipes; or, Information for Everybody," a work of 384 pages, now passing through our press, treating upon some four hundred different subjects—over eight hundred recipes—being interspersed with sufficient wit and wisdom to make it interesting as a general reading book, besides the fact that it embraces only such subjects as have a practical adaptability to "Everybody's" every-day use, makes it certain y worthy of universal favor. From the Author's great care and watchfulness in personally supervising its preparation for stereotyping, and from the correctness of its general teachings, after examination of the proof sheets, *we feel satisfied that no person will regret its purchase.* As it is sold only by traveling agents, and only one agent in a county, none, who can possibly avoid it, should allow the work to pass without obtaining a copy. It is only necessary to examine the 'Descriptive Circular," to satisfy every reasonable person of the truth of our statements.—*Syracuse Journal, N. Y.*

John A Stanley, of Fountain Creek, Tenn., writing September 13, 1870, says:—I was cured of fever sores of ten years' standing, on my foot and right arm, by your Green Salve.

Mr. E. B. Osgood, of South Vineland, says:—I have one of your Recipe Books, and you can judge how highly I value it when I tell you I paid away every cent I had to get it. My wife told me we could not afford it, but I told her that we could not afford to do without it. I have not changed my mind yet—would not part with it for $500, if I could not get another.

L. S. Mason, of Sacramento, Cal., writes February 19, 1870:—R. A. Beal: Dear Sir,—I have seen your circular and book of recipes. A friend of mine, Dr. Brown, says it is the best book of the kind he ever saw. Says he would not be without one if it cost him $10. I am so pleased with it that I wish to aid in its sale. It is a book that will never wear out. Mrs. Clapp, of the Golden Eagle Hotel, Grass Valley, says she puts up all her fruit, vegetables, meats, preserves, and eatables by your book, and never has known any one of the recipes to fail.

Charlie Williams, of Warrensburg, Pa., writing July 20, 1871, says:—R. A. Beal: Dear Sir,—I can not say one-half I desire in praise of your great work; but speaking from experience, I can say that it has saved my life. In 1866 I was at Tyrone, Blair county, Pa., and was greatly annoyed by a large goiter or tumor, as Dr. Pancost called it, the same as Bronchocele in your book. I had doctored for several months and spent almost all my means, and despaired of a cure, when I was informed of Dr. Pancost's ability to cure such cases, and that he was at the head of his profession in this country. I had very little means, but procured a pass to go to Philadelphia and see this noted doctor. I spent five days there, and he probed it several times before his students, but at last gave it up. It grew very large, on the right side of my neck. Two years after I had almost become useless with it, when a gentleman on a train between Detroit and Chicago told me that if I would stop with him he would give me a recipe to cure it. I had very little faith in his recipe, but as it would cost me nothing to stop off and get it, I did so. He went to a certain book and read from it, and I copied it down. It was the only thing that ever did me any good. I continued to use it for ten weeks, and the swelling disappeared, and has never troubled me since. Several months afterwards I found that it was the recipe for Bronchocele in your valuable book.

G. D. Curtis, of Montrose, Iowa, says:—I feel interested in the sale of your work on account of the good it has done us. By it we saved the life of one of our children that was poisoned by eating a colored card that came off from dry goods. Our family physician, on arriving at a late hour, told us we had saved the life of our child by the book, for it would have been dead long before he arrived had we not happened to have the book and used the remedy promptly.

GENERAL INDEX

BY THE PUBLISHER.

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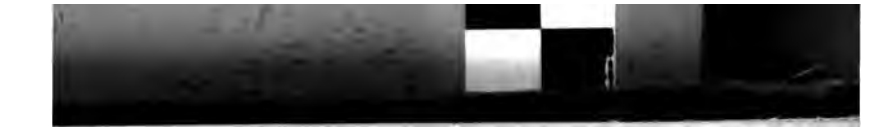

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DR. CHASE'S RECIPES.

MERCHANTS' AND GROCERS' DEPARTMENT.

VINEGAR.—Merchants and grocers who retail vinegar should always have it made under their own eye, if possible, from the fact that so many unprincipled men enter into its manufacture, as it affords such a large profit. And I would further remark, that there is hardly any article of domestic use, upon which the mass of the people have as little correct information as upon the subject of making vinegar. I shall be brief in my remarks upon the different points of the subject, yet I shall give all the knowledge necessary, that families, or those wishing to manufacture, may be able to have the best article, and at moderate figures. Remember this fact—that vinegar must have air as well as warmth, and especially is this necessary if you desire to make it in a short space of time. And if at any time it seems to be "Dying," as is usually called, add molasses, sugar, alcohol, or cider—whichever article you are making from, or prefer—for vinegar is an industrious fellow; he will either work or die, and when he begins to die you may know he has worked up all the material in his shop, and wants more. Remember this in all vinegars, and they will never die, if they have air. First, then, upon a small scale, for family use:

To Make in Three Weeks.—Molasses, 1 qt.; yeast, 1 pt.; warm rain water, 3 gals. Put all into a jug or keg, and tie a piece of gauze over the bung to keep out flies and let in air. In hot weather set it in the sun; in cold weather set it by the stove or in the chimney-corner, and in three weeks you will have good vinegar.

When this is getting low, pour out some for use, and fill up the jug in the proportion as at first, and you will never have trouble for want of good vinegar.

2. A correspondent of the *Dollar Newspaper* says: "The cheapest mode of making good vinegar is to mix 5 qts. of warm rain water with two qts. of Orleans molasses, and 4 qts of yeast. In a few weeks you will have the best vinegar you ever tasted." He might well say "The best vinegar you ever tasted," for it would have double the necessary

strength, and three or four times the strength of much that is sold; yet this strength would cost less to make, than to buy by the quart.

3. In Barrels, Without Trouble.—Merchants and grocers, who retail vinegar, can always keep a good supply on hand by having about two or three barrels out of which to sell, by filling the first one they sell out, before quite empty, with

Molasses, 1 gal.; soft water 11 gals.

Keeping this proportion to fill the barrel; the vinegar, and mother which is left in the barrel, makes it work much quicker than if put into empty barrels; so pass around to the next barrel as it is nearly out, having three barrels, and unless you sell more than a barrel a week, you need never be out of vinegar. Some recommend to use alum, cream-of-tartar, etc., in vinegar, but *I* say never. It is always advisable to have a hole in the top of the barrel, if standing on end; if on the side, the bung out and a gauze over it, to keep out flies and let air in.

4. From Sugar, Drippings from Sugar Hogsheads, etc.—Dealers who retail molasses, often have from five to fifty pounds of sugar left in the barrel after selling out the molasses. Each pound of this, or other sugar, dissolved in two gallons of soft water, makes that amount of good vinegar by either of the above plans. Rinsings of molasses barrels or drippings of sugar hogsheads, brought to this degree of sweetness, is as good for vinegar as any other material. Small beer, lager beer, ale, etc., which have become sour, make good vinegar by reducing with water; small beer will need but little water; lager beer will need as much water as beer, or a little more; and ale, twice as much water as ale; they will all need yeast, a quart or two to each barrel, unless put into barrels which have some vinegar in them, and it will do no harm, but quicken the process in all cases, if there is vinegar in the barrel.

5. From Acetic Acid and Molasses.—Acetic acid, 4 lbs.; molasses, 1 gal.; put them into a 40 gallon cask, and fill it up with rain water; shake it up and let stand from one to three weeks, and the result is good vinegar.

If this does not make it as sharp as you like, add a little more molasses. But some will object to this because an acid is used; let me say to such, that acetic acid is *concentrated* vinegar. Take one lb. or one pt., or any other quantity of this acid, and add seven times as much soft water, and you have just as good vinegar as can be made from *cider* and that *instantaneously*.

6. From Apple Cider.—As there are those who will not have any but cider vinegar, and have plenty of cider out of which to make it, I will give you the best plan of proceeding, for manufacturers:

Have a room where it will not freeze; place on end as many barrels or large casks, without heads, to hold as much as you wish to

make; fill these one-third full of soft water, and the other two-thirds with apple cider; yeast, 2 qts. to each cask.

In a few weeks you will have good vinegar; without the yeast it would be all the season in becoming good. Then fill up into barrels for sale, leaving a little, say one-eighth, in the open barrels, and fill them up with water and cider as before, and it will become good much quicker than before. If the water is objected to, use the cider without it, but pure cider makes vinegar too strong for any one to use, and requires much longer time in making. These barrels may have boards over them to keep out flies and dirt. If the retailer can give it his attention, by having a barrel of good cider vinegar to sell out of, he can always keep it up, if, when he draws out two or three gallons of the vinegar, he will go to his cider, kept for the purpose, and replace the vinegar with the cider; or, if making with molasses and water or any other article, fill up with the same; but take notice, if you forget or neglect, and draw your vinegar nearly all out before you fill in, it does not keep to the point of sharpness desired, unless you have two or three barrels as mentioned in recipe No. 3.

Persons who have old sour cider on hand can in this way, or as mentioned in No. 6, have good vinegar from it immediately, as it comes around into vinegar much quicker than new cider.

7. **In Three Days Without Drugs.**—The philosophy of making vinegar quickly, is this: The means that will expose the largest surface of the vinegar fluid, of a certain temperature, to the air, will convert it into vinegar in the shortest time; and as there is no way by which so great a surface can be exposed as by the shavings process and at the same time control the temperature, that plan has been adopted as explained in the wood-cut on the next page, and in the descriptive note:

DESCRIPTIVE NOTE.—Those wishing to manufacture, to sell at wholesale, will prepare a tub, or square box, and arrange it as shown in the accompanying cut, knowing that the taller and larger the tub, the quicker will the vinegar become good. The air holes are bored through every other, or every third stave, around the whole tub. These holes are to be about one foot or eighteen inches from the bottom; they must also be bored slanting down as you bore inward, otherwise the vinegar would run out and waste as it drips down the side or of the tub. These tubs ought to be from ten to twenty feet high, according to the quantity you desire to run off daily. Now take beech, maple or basswood boards—and they are valuable in the order named—cut them off about eighteen inches in length, and plane thick, heavy shavings from the edges; and if they do not roll up and stay in nice rolls, you must roll and tie them up with small cord; or clean corn cobs will do, but they will only last one season, whilst the shavings will last several years. If cobs are used, they must be put in layers

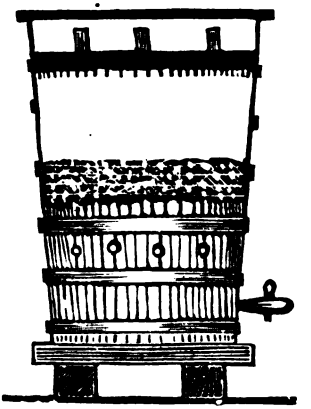
each layer crossing the other, to prevent their packing too close. Then wet or soak them thoroughly in water, and fill up the tub or tubs with them, until you are within two or three feet of the top, at which place you will nail a stout hoop around, upon the inside of the tub, which shall support the *false top*, which has been made and fitted for that purpose, through which false top you will have bored good sized gimlet holes about every two inches all over its whole surface, through each of which holes a small cord, about four or five inches in length, is to be drawn, having a knot tied upon its upper end to keep it in its place, and to prevent the vinegar fluid from working out too fast. The size of these holes, and the size of the cord, must be such as to allow the amount of vinegar being made to run through every twelve hours; or, if time can be given to put it up so often, it may run through every six hours. You will cork all around between the false top and the tub with cotton, which causes the vinegar-fluid, hereafter to be described, to pass through the gimlet holes and drip from the ends of the small cords, evenly, all over the shavings, otherwise, if the false top was not exactly level, the vinegar fluid would all run off at the lowest point, down the side of the tub, and be a very long time in becoming good, whilst if it drips slowly and all over and down through the shavings it soon comes around into good vinegar. The holes

Main cover, or loose boards.....
Vinegar fluid space .. ..
False top, with tubes; and cords hanging through it.....

Center portion of the tub, which should be filled with the shavings to within an inch or two of the false top... .....

Holes to let in air.....

The square projections on the side of the Generator represent hoops.



Vinegar Generator.

bored for that purpose, in warm weather oxidizes or acetifies the vinegar-fluid, by affording the *two* essential points of quickly making good vinegar, that is *air* and *heat*, without the expense of a fire to warm the fluid, or room in which the vinegar is made. Now bore five one-inch holes through the false top, one of them through the center, and the other two-thirds of the distance each way, towards the outside

of the tub, into which holes drive as many pins, having a three-quarter inch hole bored through them lengthwise, which makes them tubes; cut the tubes off an inch below the top of the tub, so as to be out of the way of the main cover or loose boards which will be thrown over the top of the tub for the purpose of keeping out flies and dirt, and also to keep the heated air in, which comes up through the tubes; this air becomes heated by the chemical action of the air upon the vinegar fluid as it drips along down through the shavings in the tub, becoming so hot that it would be uncomfortable to hold the hand therein. The space between the false top and cover is called the vinegar-fluid space, and it must be sufficiently tight in the joints of the tub, or box, to hold the fluid when put in. Now take a barrel of good vinegar and pour it into the top of the tub, and let it drip through the gimlet holes, from the cords, over the shavings, two or three times, each time putting on one gallon of highwines, or two or three gallons of cider, as the case may be, which sours the shavings and greatly helps the starting process of the vinegar-making. Without the addition to the strength of the vinegar as it runs through, it would part with nearly all of its own strength or acidity to the shavings, and thus lose its own life. If you have not, and cannot obtain, vinegar, to start with, you must begin with weak vinegar-fluid, and keep adding to it every time through until it becomes very sour; then you will consider yourself ready to begin to make vinegar in double quick time, by using any of the fluids mentioned in the foregoing vinegar recipes. But manufacturers generally use highwines, thirty to forty per cent. above proof, one gallon; water, eleven gallons; but persons living a great distance from market will find a cheaper plan by using ninety-eight per cent. alcohol, one gallon; water, fifteen gallons; either of which makes good vinegar, using yeast of course, with either article, from one pint to one quart to each barrel being made. Another tub or vat must be set in the ground, under the generator, or in a cellar, as the case may be, to hold as much vinegar as the space between the false and real top will contain, or as much as you wish to make at one time; from which it is to be carried up in buckets, (or a wooden pump having a leather sucker is quicker and easier to raise it,) to the top of the generator until it becomes good vinegar, which it will do in the time mentioned at the head of this recipe, if passed through the generator by the faucet every twelve hours which it must be; and if the tubs are fifteen or twenty feet high, it will only need passing through once, or *twice* at most.

Some will have no vinegar but that made from apple cider; then put in one-third water, and it makes vinegar as strong as anybody ought to use; but if they will have it at full strength, make it so, only it requires a little longer time to make.

If those who have cider which has been standing a long time, and

does not become vinegar, will reduce it one-third with water, and pass it through this machine, they will grind out first rate vinegar in one or two day's time. Sour beer or ale, the artificial cider, also, if it gets sour, make good vinegar, when mixed with some other vinegar in making. Small beer, also drippings from sugar hogsheads in place of molasses, &c. Nothing having sugar or alcohol in it should be thrown away, as it will make good vinegar, which is as good as cash, and ought to be saved—if for no other purpose than to have more to give the worthy poor.

It was at first thought to be absolutely necessary to make the vinegar-fluid of about seventy-five degrees of heat, and also to keep the room of the same temperature; but it has been found that by keeping the heat in the tub by the false top and the loose cover, that in warm weather it does very well without heating up the fluid, although it would make a little quicker with it; and if desired to make in cold weather, you must heat the fluid and keep the room warm also.

If families choose to try this plan, they can make all they will need in a keg not larger than a common churn, whilst wholesalers will use tubs as tall as their rooms will admit.

The first merchant to whom I sold this recipe made all the vinegar he could retail by placing strips of board across the center of a whisky barrel which supported the shavings in the upper half only, allowing the vinegar to stand in the lower half; as his room was so low, he could only use the one barrel and a wash-tub at the top, instead of the false top and space as represented in our cut; it took him only a week to make it in this way. I used the vinegar over a year. The strength of the fluid he used was good common whisky, one gal.; water, four gals. So it will be seen that all kinds of spirit, or articles containing spirit, can be made into vinegar.

REMARK.—If you wish to make *sugar* into vinegar, do not attempt to run it through the *generator*, as it forms mother in that way, and soon fills up the little holes; but make it by standing in a barrel, as mentioned under that head, No. 4.

8. Quick Process, by Standing upon Shavings.—Take 4 or 5 hogsheads or casks, and set them side by side, having a faucet near the bottom; then fill up the casks full of shavings prepared as in the foregoing recipe, or clean corn-cobs, putting some turning shavings over the top, after having put on an old coffee sack to keep the fine shavings from falling down among the coarse ones; this is to keep in the warmth; now sour the shavings with the best vinegar, by throwing it on the shavings and letting it stand half a day or so; then draw off by the faucet at the bottom, and throw it on again, adding 1 qt. of highwines to each barrel each time you draw it off, as the shavings absorb the acid, and the vinegar would become flat, but by adding the

trits the shavings become soured or acetified, and the vinegar gets better also. When the shavings are right take highwines, 30 or 40 per cent above proof, 1 gal.; molasses, 1 qt.; soft water, 14 gals.; (river or well water will do, but not as good for any vinegar) and put it upon the shavings, and draw off and put on again from one to three times daily, until sufficiently sour to barrel up.

Mr. Jackson, a grocer, of Jackon, Michigan, has been making in this way for several years. He uses, also, sour ale, rinsings of sugar hogsheads, or the drippings, and throws this fluid on the shavings, and draws off and returns from 1 to 3 times each day until sufficiently sour to barrel up, which only requires a few drawings; he then fills his barrels only two-thirds full, and leaves the bungs out summer and winter, and if he finds a barrel is getting weak in strength, he puts in a quart of highwines, which recruits the strength, or gives it work again, which, as I remarked before, if you give him stock to work on, and air, he labors—without both, he dies. *Bear this in mind*, and your vinegar will improve all the time, no matter how, or of what it is made. He fills the tubs only one-third or one-half full when making, does not heat, but uses yeast, and only works them in warm weather and in winter fills the tubs with good vinegar, and lets them stand over until spring, when they are ready for work again.

This man, with five casks thus managed, has sold over three hundred barrels of vinegar in one season.

It might not be amiss, in closing this *long* subject, to say that when you have no vinegar to begin with in *either* of the processes, that if you commence with the fluid quite weak at first it begins to sour quicker than if begun with at full strength, then as it begins to become sour, add more of the spirit, cider, sugar, or molasses, &c., until you get the desired point of strength. So you might go on until a swallow of it would strangle a man to death, and remove every particle of skin from his throat.

BUTTER.—To Preserve any Length of Time.—First—work out all the buttermilk. Second—use rock salt. Third—pack in air tight jars or cans. Fourth—keep in a cool place, and you will have nice butter for years, if desired to keep so long. A short recipe, but it makes long butter.

Merchants who take in more butter than they can sell during the warm months, can put it into jars and cover the jar with about half an inch of lard over the top of the butter, and place it in the cellar; or they can put about an inch or two of brine in place of the lard, and have it do well, first working out all the *buttermilk* which may remain, when brought in. It would be better for them to have their regular customers to furnish them butter, to whom they furnish the right kind of salt, as the rock, or crystal salt does not contain so much lime as the common, which is evaporated by artificial heat. Let sugar, and salt-

petre, and all other *peters*, alone, if you wish good butter, either for present use or long keeping.

2. Making—Directions for Dairymen.—If butter makers or dairymen, will use only shallow pans for their milk—and the larger the surface, and the less the depth of the milk the better—then put into each pan, before straining, 1 qt. of cold spring water to every three quarts of milk, they will find the cream will begin to rise immediately, and skim every twelve hours, the butter will be free from all strong taste arising from leaves, or coarse pasturage.

It is a fact, also, that high or upland makes better butter than when the cows are kept on rich bottom pasturage. The object of the cold water is double; it cools the milk, so that the cream rises before the milk sours, (for when milk becomes sour it furnishes no more cream,) and also improves the flavor.

3. Storing—The (Illinois) Prairie Farmer's Method.—First, work the buttermilk carefully from the butter; then pack it closely in jars, laying a thin cloth on top of the butter, then a thin layer of salt upon the cloth; now have a dry cellar, or make it so by draining, and dig a hole in the bottom of it for each jar, packing the dirt closely and tightly around the jar, allowing the tops of the jars to stand only an inch or so above the top of the cellar bottom; now place a board with a weight upon each jar to prevent removing by accident, and all is safe.

Merchants who are buying in butter, should keep each different lot separate by using the thin cloth and salt, then another cloth over the salt before putting in another lot, for mixed butter will soon spoil, besides not selling as well, and finally cover the top as before described. If kegs or barrels are used, the outside must be as well painted as possible to prevent outside tastes, and also to preserve the wood.

FRUITS TO KEEP—Without Loss of Color or Flavor.—To each pound of resin, put in one oz. of tallow, and 1 oz. of beeswax. Melt them slowly over the fire in an iron kettle, and be careful and not let it boil. Take the fruit separately and rub it over with whiting or fine chalk (to prevent the coating from adhering to the fruit,) then dip into the solution once and hold it up a moment to set the coating; then pack away carefully in barrels or boxes in a cool place. When you dip oranges or lemons, loop a thread around to hold them; for pears or apples insert a pointed stick to hold them by; then cut it off with a pair of sharp, heavy shears. Oranges or lemons cannot be put in boxes, but must be placed on shelves, as the accumulated weight would mash them down.

It is now a well-established fact that articles put up scientifically air tight, may be kept fresh and fair for any length of time, or until wanted for use. This composition makes good sealing for air-tight

cans or bottles, pouring it around the top of the can cover, and dipping the neck of the bottle into it. A *patent* has been secured for a composition for preserving fruit, of different proportions, however, from the foregoing, but the agent, at the Ohio State Fair in 1859, had such poor success at selling rights at three dollars that he reduced the price to twenty-five cents, and still but few would take hold of it, so that I think that not much more will be done with the patent. I purchased twenty recipes for one dollar, but finding his composition to stick together and tear off pieces wherever they touched each other, I went to work to improve it as above. The patented proportions are, resin, 5 lbs.; lard or tallow, 8 oz., beeswax, 4 oz. The patentee is John K. Jenkins, of Wyoming, Pa., and the patent was issued December 8, 1858. It does not work well on peaches or other juicy garden fruits.

EGGS—To Preserve for Winter Use.—For every three gallons of water, put in one pt. of fresh slaked lime, and common salt, ½ pt.; mix well, and let the barrel be about half full of this fluid, then with a dish let down your fresh eggs into it, tipping the dish after it fills with water, so they roll out without cracking the shell, for if the shell is cracked the egg will spoil.

If fresh eggs are put in, fresh eggs will come out, as I have seen men who have kept them two, and even four years, at sea. A piece of board may be laid across the top of the eggs, and a little lime and salt kept upon it, which keeps the fluid as strong at the top as at the bottom. This will not fail you. They must always be kept covered with the brine. Families in towns and cities by this plan can have eggs for winter use at summer prices. I have put up forty dozen with entire success

The plan of preserving eggs has undoubtedly come from a patent secured by a gentleman in England in 1791, Jaynes, of Sheffield, Yorkshire, which is as follows:

2. English Patented Method.—"Put into a tub 1 bu., Winchester measure, of quick lime, (which is fresh slaked lime,) salt, 32 oz.; cream-of-tartar, 8 oz. Use as much water as will give that consisteney to the composition as will cause an egg to swim with its top just above the liquid. Then put and keep the eggs therein, which will preserve them perfectly sound at least 2 years."

Persons who think it more safe can follow this English plan. I desire in all cases to give all the information I have on each subject. Consequently I give you the following also:

3. J. W. Cooper, M. D.'s, Method of Keeping and Shipping Game Eggs.—"Dissolve some gum shellac in a sufficient quantity of alcohol to make a thin varnish, give each egg a coat, and after they become thoroughly dry, pack them in bran or sawdust, with their points downwards, in such a manner that they cannot shift about. After you have kept them as long as you desire, wash the varnish

carefully off, and they will be in the same state as they were before packing, ready for eating or hatching."

This would seem to be from good authority, as Dr. Cooper has been engaged for the last thirty years in raising nothing but the best game fowls, and he has frequently imported eggs. He invariably directed them to be packed as above, and always had good success with them, notwithstanding the time and distance of the journey. He has also published a work upon *Game Fowls.* His address is Media, Delaware Co., Pa.

This last plan would be a little more troublesome, but still would not be very much to prepare all that families would wish to use through the winter, or even for the retailer; as the convenience of having them in condition to ship would be one inducement to use the last method, for with the first they must be taken out and packed in oats or something of that sort, to ship; with the last they are always ready, and weather permitting, about Christmas or New Year's, fresh and good eggs in cities always command sufficient price to pay for all trouble and expense in the preservation and shipment.

THE SEX OF EGGS.—Mr. Genin lately addressed the Academy des Sciences, France, on the subject of the sex of eggs. He affirms that he is now able, after having studied the subject for upwards of three years, to state with assurance that the eggs containing the germ of males, have wrinkles on their smaller ends, while female eggs are smooth at the extremities.

While on the subject of eggs, you will excuse me for putting in a couple of items more which appropriately belong to other departments:

4. To Increase the Laying.—"For several years past I have spent a few weeks of the latter part of August on the Kennebec River, in Maine. The lady with whom I have stopped is a highly accomplished and intelligent house-wife. She supports a "hennery," and from her I derived my information in the matter. She told me that for many years she had been in the habit of administering to her hens, with their common food:

"Cayenne pepper, pulverized, at the rate of 1 tea-spoon each alternate day to one doz. fowls.

"Last season, when I was with her, each morning she brought in from twelve to fourteen eggs, having but sixteen hens in all. She again and again experimented in the matter by omitting to feed with the cayenne for two or three days. The consequence invarably was that the product of eggs fell off five or six per day. The same effect of using the cayenne is produced in winter as in summer. —*Boston Transcript.*

5. To Fry—Extra Nice.—Three eggs; flour, 1 table spoon; milk 1 cup.

Beat the eggs and flour together, then stir in the milk. Have a skillet with a proper amount of butter in it, made hot, for frying this mixture; then pour it in, and when one side is done brown, turn it over, cooking rather slowly; if a larger quantity is needed, it will require a little salt stirred in, but for this amount the salt in the butter in which you fry it seasons it very nicely.

BURNING FLUID—Best in Use.—Alcohol, of 98 per cent., 9 pts.; good camphene, 1 qt., or in these proportions. Shake briskly, and it will at once become clear, when without the shaking it would take 6 to 7 qts. of alcohol to cut the camphene, while with the least it is the best.

These proportions make the best burning fluid which can be combined. Many put in camphor gum, alum, &c., the first to improve its burning qualities, the last to prevent explosion, but they are perfectly useless for either, from the fact that camphor adds to the smoking properties, and nothing can prevent the gas arising from any fluid that will burn, from explosion, if the fire gets to it when it is confined. The only safety is in filling lamps in day time, or far from fire or lights; and also to have lamps which are perfect in their construction, so that no gas may leak out along the tube, or at the top of the lamp; then let who will say he can sell you a recipe for non-explosive gas or fluid, you may set him down at once for a humbug, ignoramus, or knave. Yet you may set fire to this fluid, and if not confined it will not explode, but will continue to burn until all is consumed. Families cannot make fluid any cheaper than to buy it, as the profit charged on the alcohol is usually more than that charged on fluid; but they will have a better article by this recipe than they can buy, unless it is made from the same, and it is best for any one, even the retailer, only to make small quantities at a time, and get the freshest camphene possible. When made in larger quantities, even a barrel, unless sold out very soon, the last part is not as good as the first, owing to the separation of the camphene from the alcohol, unless frequently shaken, whilst being retailed out.

INTEREST.—Computing by One Multiplication and One Division, at any Rate Per Cent.—Multiply the amount by the number of days, (counting 30 days to each month.)

Divided by	60	gives the	interest	at 6	per cent.
do	45	"	"	8	"
do	40	"	"	9	"
do	36	"	"	10	"
do	30	"	"	12	"

EXAMPLE.—$150 at 3 months and 10 days, or 100 days, is 15,000, divided by 60 gives $2.50, which is the interest at 6 per cent.; or divided by 45 gives $3.33 interest at 8 per cent, &c.

I sold a gentlemen, a miller, one of my books the second time, as

some person stole the first before he became familiar with the foregoing rules, which he admired too much to lose.

2. Method by a Single Multiplication—Rule.—To find the interest on any given sum of money for any number of years, months or days. Reduce the years to months, add in the months, if any, take one-third of the days and set to the right of the months, in decimal form, multiply this result by one-half the principal, and you have the interest required.

EXAMPLE.—The interest required on $1,400 for 2 years, 3 months, and 9 days:

Interest on $1,400 for 2 years, 3 months and 9 days.

27.3
700

Answer required, $191.10.0

The above example is at six per cent. Rule to obtain the interest at any other rate: For seven per cent. increase the interest at six per cent. by one-sixth, for eight per cent. by one-third, for nine per cent. by one-half, for ten per cent. by two-thirds, for eleven per cent. by five-sixths, for twelve per cent. multiply by two. Twelve per cent. is the highest rate of interest allowed by any State, except Minnesota, which, I believe, allows fifteen per cent.

In pointing off, persons will observe to point off as many figures in the product or answer as there are decimal points in the multiplicand. The balance, or remainder, shows you the dollars and cents.

COUNTERFEIT MONEY—Seven Rules for Detecting.—FIRST.—Examine the form and features of all human figures on the notes. If the forms are graceful, and features distinct, examine the drapery—see if the folds lie natural; and the hair of the head should be observed, and see if the fine strands can be seen.

SECOND.—Examine the lettering, the title of the bank, or the round handwriting on the face of the note. On all genuine bills, the work is done with great skill and perfectness, and there has never been a counterfeit but was defective in the lettering.

THIRD.—The imprint, or engraver's name. By observing the great perfection of the different company names, in the evenness and shape of the fine letters, counterfeiters never get the imprint perfect. This rule alone, if strictly observed, will detect every counterfeit note in existence.

FOURTH.—The shading in the back-ground of the vignette, or over or around the letters forming the name of the bank, on a good bill is even and perfect, on a counterfeit is irregular and imperfect.

FIFTH.—Examine well the figures on the other parts of the note, containing the denomination, also the letters. Examine well the die work around the figures which stand for the denomination, to see if it

is of the same character as that which forms the ornamental work surrounding it.

SIXTH.—Never take a bill that is deficient in any of the above points, and if your impression is bad when you first see it, you had better be careful how you become convinced to change your mind—whether your opinion is not altered as you become confused in looking into the texture of the workmanship of the bill.

SEVENTH—Examine the name of the State, name of the bank, and name of the town where it is located. If it has been altered from a broken bank, the defects can plainly be seen, as the alteration will show that it has been stamped on.

INKS—Black Copying or Writing Fluid.—Rain water, 2 gals.; gum arabic, ¼ lb.; brown sugar, ¼ lb.; clean copperas, ¼ lb.; powdered nutgalls, ¾ lb.; bruise all, and mix, shaking occasionally for 10 days, and strain; if needed sooner, let it steep in an iron kettle until the strength is obtained.

This ink can be depended upon for deeds and records which you may wish some one to read hundreds of years to come. Oxalic acid one-fourth oz. was formerly put in, but since the use of steel pens it does not work well on them. If not used as a copying ink, one-fourth the gum or sugar is sufficient, as it flows more freely without them.

2. Common Black.—Logwood chips, 1 lb.; boil in 1½ gals. of water until reduced to 2 qts.; pour off, and repeat the boiling again as before; mix the two waters, 1 gal. in all; then add bi-chromate of potash, ½ oz.; prussiate of potash, ¼ oz.; prussiate of iron, (prussian blue) ½ oz.; boil again about five minutes, and strain and bottle for use.

You will find none of the gumminess about this ink that is found in that made from the extract of logwood; yet it is not presumed that this will be as durable as the gall inks, for deeds, records, &c,, &c., but for schools and common use it is as good as the most costly inks. This copy was prepared with it, which was made two years ago.

3. Red—The Very Best.—Take an ounce vial and put into it a tea-spoon of aqua ammonia, gum arabic the size of 2 peas, and 6 grs. No. 40 carmine, and 5 grs. No. 6 or 8 carmine also; fill up with soft water and it is soon ready for use.

This forms a beautiful ruling ink. I sold the book in Pike County Bank, Ill., from the fact that this ink was so much better than what they could get of any other make. Speaking of banks makes me think of what a gentleman of Michigan City, Ind., told me about a black ink for banking purposes which would never fade, composed of two articles only:

Iron or steel filings and simple rain water, exposing it to the sun

for a good length of time; pale when first written with, but becoming very black.

I have never thought to try it, but now mention it, for it might be good, and lost to the world, unless now thrown to the public.

4. Blue.—Take sulphate of indigo and put it into water until you get the desired depth of color; that sold in little boxes for bluing clothes is the article desired.

This does well for school children, or any writing not of importance to keep; but for book-keeping it is not good, as the heat of a safe in a burning building fades away the color.

5. Indelible.—Nitrate of silver, 11 grs.; dissolve it in 30 grs., (or about a tea-spoon) of water of ammonia; in 85 grs. (or 2½ tea-spoons) of rain water, dissolve 20 grs. of gum arabic. When the gum is dissolved put in the same vial also 22 grs. of carbonate of soda, (sal-soda.) When all is well dissolved, mix both vials, or their contents, and place the vial containing the mixture in a basin of water, and boil for several minutes, or until a black compound is the result. When cold it is ready for use. Have the linen or other goods starched and ironed, and perfectly dry; then write with a quill pen.

If twice the amount is made at a time it will not cost any more, as the expense is only from the trouble of weighing, so little is used of the materials. Soft soap and boiling cannot efface it, nor years of wear. Use only glass vessels.

6. Powder—Black.—Sulphate of copper, 1 dr.; gum arabic, ¼ oz.; copperas 1 oz.; nutgalls and extract of logwood 4 ozs. each; all to be pulverized and evenly mixed.—*Scientific American.*

About one oz. of the mixture will be required to each pint of boiling water used. It will be found a valuable color for boot, shoe or harness-edge, also. It should stand a couple of weeks before using, or it may be steeped a few hours if needed sooner.

HONEYS.—Artificial Cuba Honey.—Good brown sugar, 10 lbs.; water, 1 qt.; old bee-bread honey in the comb, 2 lbs.; cream of tartar, 1 tea-spoon; gum-arabic, 1 oz.; oil of peppermint, 3 drops; oil of rose, 2 drops. Mix and boil 2 or 3 minutes, and have ready 1 qt. more of water in which an egg is put well beat up; pour it in, and as it begins to boil, skim well, remove from the fire, and when a little cool, add 2 lbs. of nice bees' honey, and strain.

This is really a nice article, looking and tasting like honey. It has been shipped in large quantities under the name of "Cuba Honey." It will keep any length of time as nice and fresh as when first made, if sealed up. Some persons use a table-spoon of slippery elm bark in this amount, but it will ferment in warm weather, and rise to the top, requiring to be skimmed off. If it is to be used only for eating purposes, the cream-of-tartar and gum-arabic may be left out. also the old bee-bread honey, substituting for it another pound of nice honey.

2. Domestic Honey.—Coffee sugar, 10 lbs.; water, 3 lbs.; cream-of-tartar, 2 ozs.; strong vinegar, 2 table-spoons; the white of one egg well beaten; bees' honey, ½ lb.; Lubin's extract of honeysuckle, 10 drops.

First put the sugar and water into a suitable kettle and place upon the fire; and when luke-warm stir in the cream-of-tartar, and vinegar; then continue to add the egg; and when the sugar is nearly melted put in the honey and stir until it comes to a boil, take it off, let it stand a few minutes, then strain, adding the extract of honeysuckle last, let stand over night, and it is ready for use. This resembles candied honey, and is a nice thing.

3. Excellent Honey.—An article suitable for every-day use is made as follows:

Good common sugar, 5 lbs.; water, 1 qt.; gradually bring it to a boil, skimming well; when cool, add 1 lb. bees' honey and 4 drops of peppermint essence.

If you desire a better article, use white sugar and one-half pint less water and one-half pound more honey. If it is desired to give it the ropy appearance of bees' honey, put into the water one-fourth ounce of alum.

4. Premium Honey.—Common sugar, 4 lbs.; water, 1 pt.; let them come to a boil, and skim; then add pulverized alum, ¼ oz.; remove from the fire and stir in cream-of-tartar, ½ oz.; and water or extract of rose, 1 table-spoon, and it is fit for use.

This took the premium at the Ohio State Fair. We use the recipes for common sugar and the one using Lubin's extract of honeysuckle, and desire nothing better.

JELLIES.—Without Fruit.—Take water, 1 pt., and add to it pulverized alum, ¼ oz., and boil a minute or two; then add 4 lbs. of white crushed or coffee sugar, continue the boiling a little, strain while hot; and when cold put in half of a two shilling bottle of extract of vanilla, strawberry, or lemon, or any other flavor you desire for jelly.

This will make a jelly so much resembling that made from the juice of the fruit that any one will be astonished, and when fruit can not be got, it will take its place admirably. I have had neighbors eat of it and be perfectly astonished at its beauty and palatableness.

BAKING POWDERS.—Without Drugs.—Baking soda, 6 ozs.; cream-of-tartar, 8 ozs.; first dry them from all dampness by putting them on a paper and placing them in the oven for a short time, then mix and keep dry, in bottles or boxes.

The proper amount of this will be about one tea-spoon to each quart of flour being baked. Mix with cold water, and bake *immediately*. This contains none of the drugs generally used for baking powders; it is easy made, and does not cost over half as much as to buy them already made. This makes biscuit very nice without milk or shorten-

ing. Yet if milk is used, of course it would be that much richer. The main object of baking powders is for those who are "keeping batch," as it is called, or for those who are far from civilized conveniences, and for those who prefer this kind of bread or biscuit to that raised with yeast or sour milk and saleratus. I stand among the latter class.

MOUTH GLUE.—For Torn Paper, Notes, &c.—Any quantity of glue may be used, with sugar, only half as much as of the glue.

First dissolve the glue in water, and carefully evaporate as much of the water as you can without burning the glue; then add the sugar; if desired to have a very nice article, use gelatine in place of the glue, and treat in the same manner; when the sugar is dissolved in the glue pour it into moulds or a pan and cut it into squares, for convenience, before it gets too hard. This dissolves very quickly by placing the edge of a piece in the mouth, and is not unpleasant to the taste, and is very handy for office or house use. Use to stick together torn bills, paper, etc., by softening the edge of a piece, as above, then touching the parts therewith and pressing together for a moment only.

SALOON DEPARTMENT.

REMARKS.—If saloon keepers and grocers, who deal in wine, beer, cider, etc., will follow our directions here, and make some of the following articles, they, and their customers, will be better pleased than by purchasing the spurious articles of the day; and families will find them equally applicable to their own use. And although *we start* with an *artificial* cider, yet it is as healthy, and is more properly a small beer, which it should be called, but from its close resemblance to cider, in taste, it has been so named.

CIDERS.—Artificial, or Cider Without Apples.—To cold water, 1 gal., put dark brown sugar, 1 lb.; tartaric acid, ½ oz.; yeast, 3 tablespoons, and keep these proportions for any amount desired to make; shake it well together. Make it in the evening and it will be fit for use the next day.

I make in a keg a few gallons at a time, leaving a few quarts to make into next time—not using yeast again until the keg needs rinsing. If it gets a little sour make more into it. In hot weather draw in a pitcher with ice; or if your sales are slow, bottle it and keep in a cool cellar according to the next recipe.

2. To Bottle.—If it is desired to bottle this artificial cider by manufacturers of small drinks, you will proceed as follows:

Put into a barrel hot water, 5 gals.; brown sugar, 30 lbs.; tartaric acid, ¾ lb.; cold water, 25 gals.; hop or brewers' yeast, 3 pts.; work the yeast into a paste with flour, ¾ lb.; shake or stir all well together; fill the barrel full, and let it work 24 to 48 hours; or until the yeast is done working out at the bung, by having put in a little sweetened water occasionally to keep the barrel full.

When it has worked clear, bottle, putting in two or three broken raisins to each bottle, and it will nearly equal champagne. Let the bottles lie in a cool place on the side—(observe also this plan of laying the bottles upon the side, in putting away apple cider or wine)—but if it is only for your own retail trade, you can make as follows in the next recipe, and have it keep until a barrel is retailed. The first recipe will last only three or four days in hot weather, and about two weeks in winter.

3. In Barrels for Long Keeping.—If retailers wish to keep this cider with the least possible loss of time, or families for their own drink or for the harvest field, proceed as follows:

Place in a keg or barrel, cold water, 20 gals., brown sugar, 15 lbs. and tartaric acid, ½ lb. only, not using any yeast, but if you have them, put in 2 or 3 lbs. dried sour apples, or boil them and pour in the expressed juice; without the yeast it will keep, in a cool cellar, for several weeks, even in summer. The darker the sugar the more natural will be the color of the cider.

Dr. O. B. Reed, of Belle River, Mich., with whom I read medicine, drank freely, while sick with bilious fever, knowing its composition, and recommended it to his patients as soon as he got out amongst them again, as a drink that would allay thirst, with the least amount of fluid, of anything with which he was acquainted. But some will prefer Prof. Hufeland's drink for Fever Patients, which see.

4. Apple Cider, to Keep Sweet, with but Trifling Expense.—Two things are absolutely necessary to preserve cider in a palatable state for any considerable time; that is, to clear it of pomace, and then to keep it in a cool place, and the cooler the place the better. And then if kept air-tight, by bottling, it is also better, but farmers cannot take the time nor expense of bottling. Some persons leach it through charcoal, and others boil, or rather scald and skim, to get clear of the pomace. In the first place, cider that is designed to keep over winter, should be made from ripe, *sound*, *sour* apples only, and consequently it will be getting cool weather, and less likely to ferment. Then when made:

Stand in open casks or barrels, and put into each barrel about 1 pt. each of hickory, (if you have them; if not, other hard wood,) ashes and fresh slaked lime; stir the ashes and lime first into 1 qt. of new milk; then stir into the cider. It will cause all the pomace to rise to the surface, from which you can skim it as it rises, or you can let it remain about 10 hours, then draw off by a faucet near the bottom, through a strainer, to avoid the hardened pomace.

It is now ready for bottling, or barreling, if too much trouble to bottle. If you barrel it, it has been found essential to sulphur the barrel. The sulphuring is done by dipping cotton cloth into melted sulphur, and drying it; then cutting into strips about two by six inches. Put about three gallons of cider into the barrel; fire one end of the strip of the sulphured cloth, and introduce it into the bung-hole, and hold it by means of the bung, giving it air sufficient to let it burn, keeping the smoke in as it burns, when you will push the bung in tight and shake the barrel until the sulphur-gas is absorbed into the cider; then fill up the barrel with cider, and if not already in the cellar, place it there, and you have accomplished the two points first spoken of. If the above plan is too much labor, get oil barrels. It

possible, to keep your cider in, (as vinegar can scarcely be made in an oil barrel,) the oil coming out a little and forming an air-tight coat on the top of the cider in the barrel; or,

5. Make your cider late in the fall, and when made, put into each barrel, immediately, ground mustard, ½ lb.; salt, 2 oz.; pulverized chalk, 2 oz; stir them up in a little of the cider, then pour into the barrel, and shake well.

I have drank cider, kept in this way, in August, which was made in early spring; it was very nice.

6. I have had cider keep very nice, also, by keeping in a cool cellar, and putting into each barrel:

Mustard seed, 2 oz.; allspice, 2 oz.; sweet oil, ½ pt., and alcohol, 1 pt. only.

Always ship your cider, if you have cider to ship, late in the fall, or early in spring, for if taken out of a cool cellar in hot weather it is sure to start fermentation. If wanted for medicine, proceed as in the following recipe:

7. To Prepare for Medicine.—To each barrel of cider just pressed from ripe, sour apples, not watered:

Take mustard seed, unground, 1 lb.; isinglass, 1 oz.; alum, pulverized, 1 oz.; put all into the barrel, leave the bung out, and shake or stir once a day for four days, then take new milk, 1 qt., and half a dozen eggs, beat well together, and put them into the cider and stir or shake again, as before, for 2 days; then let it settle until you see that it is clear, and draw off by a faucet.

And if you wish to use in place of wine, in medicine, put it into bottles; but if designed for family use, you can barrel it, bunging it tight, and keep cool, of course, and you will have a *very nice article*, if the cider was not made too near a well, or running stream of water; but it is found that if made too near these, the cider does not keep. Judge ye why?

In some parts of England, by using only ripe, sound apples, letting it work clear, racking off about twice, bottling, etc., etc., cider is kept from twenty to thirty years. When cider is drawn off and bottled, it should not be corked until the next day after filling the bottles, as many of them will burst. Then lay on the side.

SYRUPS.—To Make the Various Colors.—Powder cochineal, 1 oz.; soft water, 1 pt.; boil the cochineal in the water for a few minutes, using a copper kettle; while boiling, add 30 grs. of powdered alum, and 1 dr. of cream-of-tartar; when the coloring matter is all out of the cochineal, remove it from the fire, and when a little cool, strain, bottle and set aside for use.

This gives a beautiful red, and is used in the strawberry syrups only. Colored rather deep in shade. Pine apple is left without color. Wintergreen is colored with tincture of camwood, (not deep.) Lemon

and ginger with tincture of turmeric. See "Tinctures." The two last named syrups are not colored high—a light shade only.

2. Artificial, Various Flavors.—The ground-work of all syrups ought to be the same, *i. e.*, simple syrup; to make it, take 2⅛ lbs. of the best coffee sugar, which is found not to crystalize, and water, 1 pt., or what is the same, 60 lbs. sugar, water, 3 gals.

Dissolve the sugar in the water by heat, removing any scum that forms upon it, and strain while hot. This can be kept in a barrel or keg, and is always ready to flavor, as desired.

3. Raspberry—Is made as follows:

Take orris root, bruised, any quantity, say ¼ lb., and just handsomely cover it with dilute alcohol, (76 per cent. alcohol, and water, equal quantities,) so that it cannot be made any stronger of the root. This is called the "Saturated Tincture," and use sufficient of this tincture to give the desired or natural taste of the raspberry, from which it cannot be distinguished.

4. Strawberry—Flavor is as follows:

The saturated tincture of orris, as above, 2 ozs., acetic ether, 2 drs.; mix, and use sufficient to give the desired flavor—a very little only is required, in either case.

5. Pine Apple—Flavor is made by using, to suit the taste, of butyric-ether. If persons have any doubt of these facts, simply try them. Some think syrups even for fountains, charged with carbonic acid gas, that it is best to use about three-fourths oz. of tartaric acid to each gallon, but I prefer none unless the fountain is charged with the super-carbonate of soda, in which case it is necessary to use about three-fourths oz. of the acid to each pound of sugar. See "Soda Syrups."

This above plan, for making *simple syrup*, is the true way of making all syrups; but some people think they must use more water, that the syrup may be cheaper. Others will object to using artificial flavors. Oh! they say: "I buy the genuine article." Then, just allow me to say, don't *buy* the syrups nor the extracts, for ninety-nine hundredths of them are not made from the fruit, but are artificial. Rather make your own, as given under the head of "Jams and Extracts." For the more watery syrups, see "Soda Syrups."

6. Sarsaparilla—Is very nice as follows:

Simple syrup, as above, and nice golden syrup, equal quantities of each, and mix well; then use a few drops of oils of wintergreen and sassafras to each bottle, as used.

The amounts for the desired flavors cannot be given exactly to suit every one, but all will wish different flavors, in some towns using very high flavor, and in others sufficient to perceive it merely. All will soon get a plan of their own, and like it better than that of oth-

ers. This mixture of golden syrup makes the sarsaparilla a beautiful dark color without other coloring.

7. Lemon Syrup, Common.—Was formerly made by dissolving four pounds of crushed sugar in one quart of water, by boiling, and adding three ounces of tartaric acid and flavoring with the oil of lemon; but it is best made as follows:

Coffee sugar, 3 lbs.; water, 1½ pts.; dissolve by gentle heat, and add citric acid, 3 ozs., and flavor with oil or extract of lemon. See "Extracts."

8. Or a very nice lemon syrup is made as follows: Take citric acid in powder, ¼ oz.; oil of lemon, 4 drops; simple syrup, 1 qt.

Rub the acid and oil in three or four spoons of the syrup, then add the mixture to the remainder, and dissolve with gentle heat. Citric acid is not as likely to cause inflammation of the stomach as the tartaric, hence, its better adaptation to syrups calculated for drinks, and especially in disease.

9. Lemon Syrup—To Save the Loss of Lemons.—Where you have lemons that are spoiling or drying up, take the insides which are yet sound, squeeze out the juice, and to each pint put 1½ lbs. white sugar, and a little of the peel; boil a few minutes, strain and cork for use.

This will not require any acid, and one-half tea-spoon of soda to three-fourths of a glass of water, with two or three table-spoons of syrup, makes a foaming glass. Some persons think they ought to put in water, but if water is added the syrup will not keep as well, and takes more of it.

10. Soda Syrup, With or Without Fountains.—The common or more watery syrups are made by using loaf or crushed sugar, 8 lbs.; pure water, 1 gal.; gum arabic, 2 ozs.; mix in a brass or copper kettle; boil until the gum is dissolved, then skim and strain through white flannel, after which add tartaric acid, 5½ ozs., dissolved in hot water; to flavor, use extract of lemon, orange, rose, pine-apple, peach, sarsaparilla, strawberry, etc., ½ oz. to each bottle, or to your taste.

Now use two or three table-spoons of the syrup to three-fourths of a tumbler of water and one-half tea-spoon of super-carbonate of soda, made fine; stir well and be ready to drink, or use the soda in water as mentioned in the "Imperial Cream Nectar;" the gum arabic, however, holds the carbonic acid so it will not fly off as rapidly as common soda. The above is to be used *without* fountains, that is, to make it up as used, in glasses, or for the cheaper fountains which have an ounce of super-carbonate of soda to the gallon of water; but for the fountains which are charged, in the cities, with carbonic acid gas, no acids are used in the syrups.

11. Cream Soda, Using Cow's Cream, for Fountains.—Nice loaf sugar, 5 lbs.; sweet rich cream, 1 qt.; water, 1½ gills; warm gradu-

ually so as not to burn; extract of vanilla, ¾ oz.; extract of nutmeg, ¼ oz.

Just bring to a boiling heat, for if you cook it any length of time it will crystalize; use four or five spoons of this syrup instead of three as in other syrups. If used without a fountain, tartaric acid one-quarter pound is added. The tendency of this syrup is to sour rather quicker than other syrups, but it is very nice while it lasts; and if only made in small quantities and kept cool, it more than pays for the trouble of making often.

12. Cream Soda, Without a Fountain.—Coffee sugar, 4 lbs.; water, 3 pts.; nutmegs, grated, 3 in number; whites of 10 eggs, well beaten; gum arabic, 1 oz.; oil of lemon, 20 drops, or extract equal to that amount. By using oils of other fruits you can make as many flavors from this as you desire, or prefer.

Mix all and place over a gentle fire, and stir well about thirty minutes; remove from the fire, strain, and divide into two parts; into one-half put super-carbonate of soda, eight ounces; and into the other half put six ounces tartaric acid; shake well, and when cold they are ready to use, by pouring three or four spoons, from both parts, into separate glasses which are one-third full of cool water; stir each and pour together, and you have as nice a glass of cream soda as was ever drank, which can also be drank at your leisure, as the gum and eggs hold the gas.

13. Soda Water, Without a Machine for Bottling.—In each gallon of water to be used, carefully dissolve ½ lb. of crushed sugar, and 1 oz. of super-carbonate of soda; then fill half-pint bottles with this water, have your corks ready, now drop into each bottle ½ dr. of citric acid in crystals, and immediately cork and tie down.

These bottles must be handled carefully without shaking, and keep cool, until needed; a little more or less sugar can be used, to suit the taste of different persons.

OYSTER SOUP.—To each dozen or dish of oysters put ½ pt. of water; milk, 1 gill; butter, ½ oz.; powdered crackers to thicken. Bring the oysters and water to a boil, then add the other ingredients previously mixed together, and boil from 3 to 5 minutes only.

Each one will choose to add salt, pepper, etc., to their own taste. Keep about these proportions if you should have to cook for an oyster supper, for parties, etc.

TRIPE.—To Prepare and Pickle.—First sew it up, after it is turned inside out; be careful to sew it up tight, that no lime gets into it; now have a tub of lime-water, the consistency of good thick white-wash; let it remain in from 10 to 20 minutes, or until when you take hold of it, the dark outside skin will come off; then put it into clean water, changing three or four times to weaken the lime, that the hands be not injured by it; then with a dull knife scrape off all of the dark

surface, and continue to soak and scrape several times, which removes all offensive substances and smell. After this, let it soak 20 or 30 minutes in 2 or 3 hot waters, scraping over each time; then pickle in salt and water 12 hours, and it is ready for cooking; boil from 3 to 4 hours, cut in strips to suit, and put it into nice vinegar, with the various spices, as desired; renew the vinegar at the expiration of 1 week, is all that will be required further.

Many persons stick up their *nose* when tripe is spoken of; but, if nicely prepared, I prefer it to any dish furnished by the beef.

MOLASSES CANDY AND POP-CORN BALLS.—Candy.—Equal quantities of brown sugar and molasses, and put them into a suitable kettle—copper is the best—and when it begins to boil, skim it well, and strain it, or else pour it through a fine wire sieve to free it of slivers and sticks which are often found in the sugar; then return it to the kettle and continue to boil, until, when you have dipped your hand in cold water and passed one or two fingers through the boiling candy and immediately back to the cold water, what adheres, when cold, will crush like dry egg-shells, and does not adhere to the teeth when bitten. When done, pour it on a stone or platter which has been greased, and as it gets cool begin to throw up the edges and work it by pulling on a hook or by the hand, until bright and glistening like gold; the hands should have a little flour on them occasionally; now keep the mass by a warm stove, (if much is made at one time,) and draw it into stick size, occasionally rolling them to keep round, until all is pulled out and cold; then with shears clip a little upon them, at proper lengths for the sticks, and they will snap quickly while yet the stick will bend; no color, no butter, no lard or flavor is used or need be, yet any oil can be used for flavoring, if desired, when poured out to cool.

Sugar left in molasses barrels works very nicely in this preparation. Pulverized white sugar sprinkled amongst it will prevent it from sticking together.

2. Candy Perfectly White.—If it is desired to have candy that is perfectly white, proceed as follows:

Best coffee sugar, 2½ lbs.; the nicest syrup, 1½ pts.; boil very carefully, until when tried as above, it crisps like egg-shells, or flies like glass; then draw and work upon the hook until very white.

3. Molasses Candy Without Sugar.—Porto Rico molasses, boiled and worked as above, has a cream shade according to the amount of pulling, and most persons prefer it to the mixture of sugar and molasses, as in the first.

4. Pop Corn Balls.—Pop the corn, avoiding all that is not nicely opened; place ½ bu. of the corn upon a table or in a large dripping pan; put a little water in a suitable kettle with sugar, 1 lb.; and boil as for candy; until it becomes quite waxy in water, when tried as for

candy; then remove from the fire and dip into it 6 to 7 table-spoons of thick gum solution, made by pouring boiling water upon gum arabic, over night, or some hours before; now dip the mixture upon different parts of the corn, putting a stick, or the hands, under the corn, lifting up and mixing until the corn is all saturated with the candy mixture; then with the hands press the corn into balls, as the boys do snow-balls, being quick, lest it sets before you get through.

This amount will make about one hundred balls, if properly done. White or brown sugar may be used. And for variety, white sugar for a part, and molasses or syrup for another batch. Either of these is suited to street peddlers.

5. Action of Sugar or Candy on the Teeth.—M. Larez, of France, in the course of his investigations on the teeth, has arrived at the following conclusions:

"*First.* That refined sugar, either from cane or beet, is injurious to healthy teeth, either by immediate contact with these organs, or by the gas developed owing to its stoppage in the stomach.

"*Second.* That if a tooth is macerated in a saturated solution of sugar, it is so much altered in the chemical composition that it becomes gelatinous, and its enamel opaque, spongy, and easily broken. This modification is due, not to free acid, but to a tendency of sugar to combine with the calcareous basis of the teeth."

I have destroyed my own teeth, I have no doubt now, by constantly eating candies, while in the grocery business, before I knew its injurious effects, and I *believe* it to have destroyed the *first* teeth of all my children which were born during my candy-eating propensities. What say our candy-eating gentry to the above?

LEMONADE.—To Carry in the Pocket.—Loaf sugar, 1 lb.; rub it down finely in a mortar, and add citric-acid, ½ oz.; (tartaric acid will do,) and lemon essence ½ oz., and continue the trituration until all is intimately mixed, and bottle for use. It is best to dry the powders as mentioned in the "Persian Sherbet," next following.

A rounding table-spoon can be done up in a paper and carried conveniently in the pocket when persons are going into out-of-the-way places, and added to half pint of cold water, when all the beauties of a lemonade will stand before you waiting to be drank, not costing a penny a glass. This can be made sweeter or more sour, if desired. If any, however, should prefer an effervescing drink, they can follow the directions given in the next recipe.

Persian Sherbet.—Pulverized sugar, 1 lb.; super-carbonate of soda, 4 ozs.; tartaric acid, 3 ozs.; put all the articles into the stove oven when moderately warm, being separate, upon paper or plates; let them remain sufficiently long to dry out all dampness absorbed from the air, then rub about 40 drops of lemon oil, (or if preferred any other flavored oil,) thoroughly with the sugar in a mortar—

Wedgewood is the best—then add the soda and acid, and continue the rubbing until all are thoroughly mixed.

Bottle and cork tight, for, if any degree of moisture is permitted to reach it, the acid and soda neutralize each other, and the virtue is thus destroyed. A middling sized table-spoon or two tea-spoons of this put into a half pint glass and nearly filled with water and quickly drank, makes an agreeable summer beverage; and if three or four glasses of it are taken within a short time, say an hour or two, it has the effect of a gentle cathartic, hence, for those habitually costive it would be found nearly or quite equal to the Seidlitz powder, and for children it would be the more pleasant of the two. [The printers have tried it, and can bear testimony to its good qualities.]

BEERS.—Root Beer.—For each gallon of water to be used, take hops, burdock, yellow dock, sarsaparilla, dandelion, and spikenard roots, bruised, of each ½ oz.; boil about 20 minutes, and strain while hot, add 8 or 10 drops of oils of spruce and sassafras mixed in equal proportions, when cool enough not to scald your hand, put in 2 or 3 table-spoons of yeast; molasses, ⅔ of a pint, or white sugar, ½ lb., gives it about the right sweetness.

Keep these proportions for as many gallons as you wish to make. You can use more or less of the roots to suit your taste after trying it; it is best to get the dry roots, or dig them and let them get dry, and of course you can add any other root known to possess medicinal properties desired in the beer. After all is mixed, let it stand in a jar with a cloth thrown over it, to work about two hours, then bottle and set in a cool place. This is a nice way to take alteratives, without taking medicine. And families ought to make it every spring, and drink freely of it for several weeks, and thereby save, perhaps, several dollars in doctors' bills.

2. Spruce or Aromatic Beer.—For 3 gals. water put in 1 qt. and ½ pt. of molasses, 3 eggs well beaten, yeast, 1 gill. Into 2 qts. of the water, boiling hot, put 50 drops of any oil you wish the flavor of; or mix 1 oz. each, oils sassafras, spruce and wintergreen, then use 50 drops of the mixed oils.

Mix all, and strain; let it stand two hours, then bottle, bearing in mind that yeast must not be put in when the fluid would scald the hand. Boiling water cuts oil for beers, equal to alcohol.

3. Lemon Beer.—Water, 30 gals.; ginger root, bruised, 6 ozs.; cream-of-tartar, ¼ lb.; coffee sugar, 13 lbs.; oil of lemon, 1 oz.; or ½ oz. of the oil may be used, and 6 good sized lemons, sliced; yeast, 1½ pts.

Boil the ginger and cream-of-tartar, about twenty to thirty minutes, in two or three gallons of the water; then strain it upon the sugar and oils or sliced lemons, which have been rubbed together, having warm water enough to make the whole thirty gallons just so

you can hold your hand in it without burning, or about seventy degrees of heat; then work up the yeast into a paste, as for the cider, with five or six ounces of flour. Let it work over night, skimming off the yeast, or letting it work over as the cider, then strain and bottle for use. This will keep fifteen or twenty days. The Port Huronites think it a splendid drink.

4. Ginger Beer.—White sugar, 5 lbs.; lemon juice, 1 gill; honey, ¼ lb.; ginger, bruised, 5 ozs.; water, 4½ gals.

Boil the ginger thirty minutes in three quarts of the water; then add the other ingredients, and strain; when cold, put in the white of an egg, well beaten, with one tea-spoon of lemon essence—let stand four days, and bottle. It will keep for months—much longer than if yeast was used; the honey, however, operates mildly in place of yeast.

5. Philadelphia Beer.—Water, 30 gals.; brown sugar, 20 lbs.; ginger, bruised, 1¼ lbs.; cream-of-tartar, ¼ lb.; super-carbonate of soda, 3 ozs.; oil of lemon, cut in a little alcohol, 1 tea-spoon; whites of 10 eggs, well beaten; hops, 2 ozs.; yeast, 1 qt.

The ginger root and hops should be boiled twenty or thirty minutes in enough of the water to make all milk-warm, then strained into the rest, and the yeast added and allowed to work over night; skimmed and boiled.

6. Patent Gas Beer.—Ginger, 2 ozs.; allspice, 1 oz.; cinnamon, ½ oz.; cloves, ¼ oz.; all bruised or ground; molasses, 2 qts.; cold water, 7½ gals.; yeast, 1 pt.

Boil the pulverized articles, for fifteen or twenty minutes, in the molasses; then strain into your keg, and add the water, then the yeast, shake it well together and bung down. If made over night it will be ready for use the next day. There ought to be a little space in the keg not filled with the beer. This beer is ahead of all the pops and mineral waters of the day, for flavor, health or sparkling qualities or speed in making. Be careful you do not burst the keg. In hot weather, draw in a pitcher with ice. I have sold this in the principal towns of Ohio, Indiana, and Michigan, traveling with a caravan, and obtained two dollars for the recipe of the man who kept the inside stand, and blew the head out of the first keg of it which he made.

7. Corn Beer, Without Yeast.—Cold water, 5 gals.; sound, nice corn, 1 qt.; molasses, 2 qts; put all into a keg of this size; shake well, and in 2 or 3 days a fermentation will have been brought on as nicely as with yeast. Keep it bunged tight.

It may be flavored with oils of spruce or lemon, if desired, by pouring on to the oils one or two quarts of the water, boiling hot. The corn will last five or six makings. If it gets too sour, add more molasses and water in the same proportions. It is cheap, healthy, and no bother with yeast.

8. Strong Beer, English Improved.—Malt, 1 peck; coarse brown sugar, 6 lbs.; hops, 4 ozs.; good yeast, 1 tea-cup; if you have not malt, take a little over 1 peck of barley, (twice the amount of oats will do, but are not as good,) and put it into an oven after the bread is drawn, or into a stove oven, and steam the moisture from them. Grind coarsely.

Now pour upon the ground malt 8½ gals. of water at 170° or 172° of heat. The tub in which you scald the malt should have a false bottom, 2 or 3 inches from the real bottom; the false bottom should be bored full of gimlet holes, so as to act as a strainer, to keep back the malt meal. When the water is poured on, stir them well, and let it stand 3 hours, and draw off by a faucet; put in 7 gals. more of water at 180° to 182°; stir it well, and let it stand 2 hours and draw it off. Then put on a gal. or two of cold water, stir it well and draw it off; you should have about 5 or 6 gals. Put the 6 lbs. of coarse brown sugar in an equal amount of water; mix with the wort, and boil 1½ to 2 hours with the hops; you should have 8 gals. when boiled; when cooled to 80° put in the yeast, and let it work 18 to 20 hours, covered with a sack; use sound iron-hooped kegs or porter bottles, bung or cork tight, and in two weeks it will be good sound beer, and will keep a long time; and for persons of a weak habit of body, and especially females, one glass of this with their meals is far better than tea or coffee, or all the ardent spirits in the universe. If more malt is used, not exceeding ½ a bushel, the beer, of course, would have more spirit, but this strength is sufficient for the use of families or invalids.

9. Ale, Home-Brewed—How it is Made.—The following formula for the manufacture of a famous home-brewed ale of the English yeomanry, will convey a very clear idea of the components and mixture of ordinary ales. The middle classes of the English people usually make their ale in quantities of two barrels, that is, seventy-two gallons.

For this purpose a quarter of malt (8 bus.) is obtained at the malt-house—or, if wished to be extra strong, 9 bushels of malt—are taken, with hops, 12 lbs.; yeast, 5 qts.

The malt, being crushed or ground, is mixed with 72 gals. of water at the temperature of 160°, and covered up for 3 hours, when 40 gallons are drawn off, into which the hops are put, and left to infuse. Sixty gallons of water at a temperature of 170° are then added to the malt in the mash-tub, and well mixed, and after standing 3 hours, 60 gallons are drawn off. The wort from these two mashes is boiled with the hops for 2 hours, and after being cooled down to 63°, is strained through a flannel bag into a fermenting tub, where it is mixed with the yeast and left to work for 24 or 30 hours. It is then

run into barrels to cleanse, a few gallons being reserved for filling up the casks as the yeast works over.

Of course when the yeast is worked out it must be bunged. If one-half a pint of this was taken each meal by men, and half that amount by females, and no other spirits, tea nor coffee, during the day, I hesitate not in saying that I firmly believe it would conduce to health. I know that this, which a man makes himself, or some of the wines mentioned in this work, home-made, are all that any person ought to allow themselves to use in these days when *dollars and cents* are the governing influences of *all* who deal in *such* articles.

10. Porter, Ale, or Wine, to Prevent Flatness in Parts of Bottles for the Invalid.—Sick persons who are recommended to use ale, porter, or wine, and can only take a small glass at a time, nearly always find the last of the bottle flat or stale.

To prevent this, put in the cork firmly, and turn the cork end downwards, in a large tumbler or other vessel nearly filled with water.

This plan prevents communication with the external air.

11. Cream Nectar, Imperial.—First, take water, 1 gal.; loaf sugar, 8 lbs.; tartaric acid, 8 ozs.; gum-arabic, 1 oz.; put into a suitable kettle and place on the fire.

Second. Take flour, 4 tea-spoons; the whites of 4 eggs, well beaten together, with the flour, and add water, ½ pt.; when the first is blood-warm put in the second, and boil 3 minutes, and it is done.

DIRECTIONS.—Three table-spoons of the syrup to a glass half or two-thirds full of water, and add one-third tea-spoon of super-carbonate of soda, made fine; stir well, and drink at your leisure.

☞ In getting up any of the soda drinks which are spoken of, it will be found preferable to put about eight ounces of super-carbonate (often called carbonate of soda) into one pint of water in a bottle, and shake when you wish to make a glass of soda, and pour of this into the glass until it foams well, instead of using the dry soda as directed.

12. Ginger Pop.—Water, 5½ gals.; ginger root, bruised, ¼ lb.; tartaric acid, ½ oz.; white sugar, 2½ lbs.; whites of 3 eggs, well beaten; lemon oil, 1 tea-spoon; yeast, 1 gill.

Boil the root for thirty minutes in one gallon of the water, strain off and put the oil in while hot; mix. Make over night, and in the morning skim and bottle, keeping out sediments.

13. Spanish Gingerette.—To each gal. of water put 1 lb. of white sugar; ½ oz. best bruised ginger root; ¼ oz. of cream-of-tartar and 2 lemons sliced.

DIRECTIONS.—In making 5 gals., boil the ginger and lemons 10 minutes in 2 gals. of the water; the sugar and cream-of-tartar to be

dissolved in the cold water, and mix all, and add ½ pint of good yeast; let it ferment over night, strain and bottle in the morning.

This is a valuable recipe for a cooling and refreshing beverage; compounded of ingredients highly calculated to assist the stomach, and is recommended to persons suffering with Dyspepsia or Sick Headache. It is much used in European countries, and persons having once tested its virtues, will constantly use it as a common drink. And for saloons or groceries, no temperance beverage will set it aside.

14. Sham-Champagne—A Purely Temperance Drink.—Tartaric acid, 1 oz.; 1 good sized lemon; ginger root, 1 oz.; white sugar, 1½ lbs.; water, 2½ gals.; yeast, 1 gill.

Slice the lemon, and bruise the ginger, mix all, except the yeast; boil the water and pour it upon them, and let stand until cooled to blood heat; then add the yeast and let it stand in the sun through the day; at night, bottle, tying the corks, and in two days it will be fit to use.—*Mrs. Beecher.*

Be sure and not drink over three or four bottles at one time.

YEASTS.—Hop Yeast.—Hops, 1 oz.; water, 3 pts.; flour, 1 tea-cup; brown sugar, 1 table-spoon; salt, 1 tea-spoon; brewers' or bakers' yeast, 1 gill.

Boil the hops twenty minutes in the water, strain into a jar, and stir in the flour, sugar, and salt, and when a little cool add the yeast, and after four or five hours cover up, and stand in a cool place or on the ice for use.

The above makes a good family yeast, but the following is the regular bakers' yeast, as they always keep the malt on hand:

2. Bakers' Yeast.—Hops, 2 ozs.; water, 1 gal.; wheat flour, ½ lb.; malt flour, 1 pt.; stock yeast, ½ pt.

Boil the hops for thirty minutes in the water, strain, and let cool until you can well bear your hand in it; then stir in the flour and yeast; keep in a warm place until the fermentation is well under way, and then let it work in a cooler place six to eight hours, when it should be put in pint bottles about half full, and closely corked, and tied down. By keeping this in a very cool cellar, or ice-house, it will keep for months, fit for use. But as it is often troublesome to obtain yeast, to start with, I give you the "Distillers' Jug Yeast," starting without yeast.

3. Jug Yeast, Without Yeast to Start With.—Hops, ½ lb.; water, 1 gal.; fine malt flour, ½ pt.; brown sugar, ½ lb.

Boil the hops in the water until quite strong, strain, and stir in the malt flour; and strain again through a coarse cloth, and boil again for ten minutes; when lukewarm stir in the sugar, and place in a jug, keeping it at the same temperature until it works over; then cork tight, and keep in a cold place.

4. Yeast Cake.—Good sized potatoes, 1 doz.; hops, 1 large handful; yeast, ½ pt.; corn meal, sufficient quantity.

Boil the potatoes, after peeling, and rub them through a colander, boil the hops in two quarts of water, and strain into the potatoes; then scald sufficient Indian meal to make them the consistence of emptyings, and stir in the yeast and let rise; then, with unscalded meal thicken so as to roll out and cut into cakes, drying quickly, at first, to prevent souring. They keep better, and soak up quicker, than if made with flour.

ICE CREAM.—Fresh cream, ½ gal.; rich milk, ½ gal.; white sugar, 1 lb.; some do use as much as 2 lbs. of sugar to the gallon, yet it leaves an unpleasant astringency in the throat after eating the cream; but please yourselves.

Dissolve the sugar in the mixture, flavor with extract to suit your taste, or take the peel from a fresh lemon and steep one-half of it in as little water as you can, and add this—it makes the lemon flavor better than the extract—and no flavor will so universally please as the lemon; keep the same proportion for any amount desired. The juice of strawberries or raspberries gives a beautiful color and flavor to ice-cream; or about ½ oz. of essence or extracts to a gallon, or to suit the taste. Have your ice well broken; 1 qt. salt to a bucket of ice.

About half an hour's constant stirring and occasional scraping down and beating together, will freeze it. The old-fashioned freezer which turns in a tub of ice, makes smoother and nicer ice-cream than all the patent freezers I have seen; and the plan of using the genuine cream and milk gives sufficient profit; but I will give you the best substitutes there are, in the following recipe, but the *less* you eat of *either*, the better will it be for *health*.

2. Ice Cream, Very Cheap.—Milk, 6 qts.; Oswego corn starch, ½ lb.

First dissolve the starch in one quart of the milk, then mix all together and just simmer a little (not to boil). Sweeten and flavor to suit your taste, as above; or,—

3. Irish moss, 1½ oz.; milk, 1 gal.

First soak the moss in a little cold water for an hour, and rinse well to clear it of sand and a certain peculiar taste; then steep it for an hour in the milk just at the boiling point, but not to boil; it imparts a rich color and flavor without eggs or cream. The moss may be steeped twice.

It is the Chicago plan. I have eaten it, and know it to be very nice. A few minutes' rubbing, at the end of freezing, with the spatula, against the side of the freezer, gives ice-cream a smoothness not otherwise obtained.

WINES.—Currant, Cherry, and other Berry Wines.—The juice of either of the above fruits can be used alone, or in combinations to

make a variety of flavors, or suit persons who have some, and not the other kinds of fruit.

Express all the juice you can, then take an equal amount of boiling water and pour on the pressed fruit, let stand 2 hours, squeeze out as much as there is of juice, and mix, then add 4 lbs. of brown sugar to each gallon of the mixture; let stand until worked, or 3 or 4 weeks, without a bung in the keg or barrel, simply putting a piece of gauze over the bung-hole to keep out flies; when it is done working, bung it up.

A cool cellar, of course, is the best place for keeping wines, as they must be kept where they will not freeze. Some persons use only one-fourth juice, in making fruit wines, and three-fourths water, but you will bear in mind that the wine will be good or bad, just in proportion to the water and sugar used. If care is used when you express the juice, to prevent the pulp or seeds from entering or remaining in the juice, no other straining or racking will be needed. Most persons also recommend putting in brandy, but if any spirit is used at all, let it be pure alcohol, from one gill to one-half pint only per gallon, but the strength of juice I recommend, and the amount of sugar, remove all necessity for any addition of spirit whatever. Bear in mind that all fruit of which you are to make wine ought to be perfectly ripe, and then make it as soon as possible thereafter, not letting the juice ferment before the addition of the sugar. If bottled, always lay them on the side.

2. Rhubarb, or English Patent Wine.—An agreeable and healthful wine is made from the expressed juice of the garden rhubarb.

To each gal. of juice, add 1 gal. of soft water in which 7 lbs. of brown sugar have been dissolved; fill a keg or a barrel with this proportion, leaving the bung out, and keep it filled with sweetened water as it works over, until clear; then bung down or bottle as you desire.

These stalks will furnish about three-fourths their weight in juice, or from sixteen hundred to two thousand gallons of wine to each acre of well cultivated plants. Fill the barrels and let them stand until spring, and bottle, as any wine will be better in glass or stone.

3. Some persons give Mr. Cahoon, of Kenosha, Wis., credit for originating pie-plant wine, but that is a mistake. It has long been made in England, and has even been patented in that country. They first made it by the following directions, which also makes a very nice article, but more applicable for present use than for keeping:

For every 4 lbs. of the stalks cut fine, pour on 1 gal. of boiling water, adding 4 lbs. brown sugar; let stand covered 24 hours, having also added a little cinnamon, allspice, cloves and nutmeg, bruised, as

may be desired for flavoring; then strain and let work a few days, and bottle.

4. Tomato Wine.—Express the juice from clean, ripe tomatoes, and to each gallon of it (without any water) put brown sugar, 4 lbs.

Put in the sugar immediately, or before fermentation begins—this ought to be done in making any fruit wine. Something of the character of a cheese-press, hoop and cloth, is the best plan to squeeze out the juice of tomatoes or other fruits. Let the wine stand in a keg or barrel for two or three months; then draw off into bottles, carefully avoiding the sediment. It makes a most delightful wine, having all the beauties of flavor belonging to the tomato, and I have no doubt all its medicinal properties also, either as a tonic in disease, or as a beverage for those who are in the habit of using intoxicating beverages, and if such persons would have the good sense to make some wine of this kind, and use it instead of rot-gut whisky, there would not be one-hundredth part of the "snakes in the boot" that now curse our land. It must be tasted to be appreciated. I have it now which is three years old, worth more than much pretended wine which is sold for three or four shillings a pint.

5. Tomato Cultivation, for Early and Late.—The *Working Farmer* says of the tomato plant, "that it bears 80 per cent. of its fruit within 18 inches of the ground, while more than half the plant is above that part. When the branches are cut they do not bleed, and they may therefore be shortened immediately above the large, or early-setting fruit.

"The removal of the small fruit on the ends of the branches is no loss, for the lower fruit will swell to an unnatural size by trimming, and both a greater weight and measure of fruit will be the consequence, besides obtaining a large portion five to fifteen days earlier. The trimming should be done so as to have a few leaves beyond the fruit, to insure perfect ripening. The importance of early manuring is too evident to need comment. The burying of the removed leaves immediately around the plant is a good practice, both by insuring full disturbance of the soil, and by the presenting of a fertilizer progressed precisely to the point of fruit making. The portions buried decay rapidly, and are rapidly assimilated."

If wanted very early and large, trim off all except two or three upon each plant.

6. To ripen late tomatoes, pull the plants having green tomatoes on them, before the commencement of frosts, and hang them in a well ventilated cellar.

The fruit will continue to ripen until early winter, especially if the cellar is cool and damp.

7. The Tomato as Food.—Dr. Bennett, a professor of some

celebrity, considers the tomato an invaluable article of diet, and ascribes to it various important medical properties.

First—that the tomato is one of the most powerful *aperients* for the liver and other organs; where *calomel* is indicated, it is probably one of the most effective and least harmful remedial agents known to the profession. *Second*—that a chemical extract will be obtained from it that will *supersede* the use of calomel in the cure of disease. *Third*—that he has successfully treated *Diarrhœa* with this article alone. *Fourth*—that when used as an article of diet, it is an almost sovereign remedy for *Dyspepsia* and *indigestion*. *Fifth*—that it should be constantly used for daily food, either cooked or raw, or in the form of catsup. It is the most healthy article now in use.

Knowing personally the value of the tomato in disease, for food and wine, I freely give all the information regarding it which I can, that others may make as free use of it as health and economy demand, consequently, I give you the next item, which I have just learned as the type were being set, upon this subject, in 1860.

8. Tomatoes as Food for Cattle.—Mr. Davis, the editor of the *Michigan State News*, Ann Arbor, Mich., says, "that he has fed his cow, this season, at least ten bushels of tomatoes."

His plan is to mix a little bran with (say 3 qts. to a half bushel of tomatoes) when fed. They cause an excellent flow of rich and delicious milk.

He did not think of it until after the frosts, when observing them going to waste, he thought to see if she would eat them, which she did freely, from the commencement. I have also known pigs to eat them, but this is not common. In 1862 I found my cow to eat them as freely as spoken of by Mr. Davis.

9. Wine, from White Currants.—Ripe white currants, any quantity; squeeze out the juice, and put on water to get out as much more as there is of the juice, and mix the two, and to each gallon put 3½ lbs. of sugar; let it work without boiling or skimming for 2 or 3 months, then rack off and bottle.

The white currant has less acidity than the red, and does not require as much sugar. I have never tasted currant wine equal to this.

10. Ginger Wine.—Alcohol of 98 per cent., 1 qt.; best ginger root, bruised, 1 oz.; cayenne, 5 grs.; tartaric acid, 1 dr.; let stand 1 week and filter, or draw off by faucet above the sediment. Now add 1 gal. of water in which 1 lb. of crushed sugar has been boiled. Mix when cold. To make the color, boil ½ oz. of cochineal, ¾ oz. of cream-of-tartar, ½ oz. of saleratus, and ¼ oz. of alum, in 1 pt. of water, until you get a bright red color, and use a proper amount of this to bring the wine to the desired color.

This wine is suitable for nearly all the purposes for which any

wine is used, and a gallon of it will not cost more than a pint of many wines sold throughout the country for medicinal purposes, represented to be imported from Europe. Let a man, suffering with a bad cold, drink about half a pint of this wine hot, on going to bed, soaking his feet at the same time in hot water fifteen or twenty minutes, and covering up warm and sweating it out until morning, then washing off his whole body with cool or cold water, by means of a wet towel, and rubbing briskly with a coarse dry towel for four or five minutes; will not be able to find his cold or any bad effects of it in one case out of a hundred. Ladies or children would take less in proportion to age and strength. Females in a weakly condition, with little or no appetite, and spare in flesh, from food not properly digesting, but not yet ripened into actual *indigestion*, will find almost entire relief by taking half a wine-glass of this wine twenty minutes before meals, and following it up a month or two, according to their improved condition. For family use it is just as good without color as with it.

11. Blackberry Wine.—Mash the berries, and pour 1 qt. of boiling water to each gal.; let the mixture stand 24 hours, stirring occasionally; then strain and measure into a keg, adding 2 lbs. of sugar, and good rye whisky 1 pt., or best alcohol ½ pt., to each gal.

Cork tight, and let it stand until the following October, and you will have wine fit for use, without further straining or boiling, that will make lips smack as they never smacked under its influence before.

I feel assured that where this fruit is plenty, that this wine should take the place of all others, as it is invaluable in sickness as a tonic, and nothing is better for bowel disease. I therefore give the recipe for making it, and having tried it myself, I speak advisedly on the subject.

The *Dollar Times*, Cincinnati, O., first published this recipe, not using any spirits, but I find that it will often sour without it.

12. Lawton Blackberry—Its Cultivation.—An editor at Coldwater, Mich., says of this fruit, "that where it is best known it is one of the most popular small fruits that has ever been cultivated. It has been known to produce over one thousand full-grown berries in one season on a single stalk; the average size of fruit being from three-fourths to one and a half inches in diameter; quality excellent, very juicy, seeds very small, and few in number. Five quarts of berries will make one gallon of juice, which, mixed with two gallons of water and nine pounds of refined sugar, will make three gallons of wine, equal in quality to the best grape wine. Professor Mapes, and many others, who have tested the qualities of the same as a wine-fruit, speak of it in terms of the highest praise.

13. Port Wine.—Fully ripe, wild grapes, 2 bus.; best alcohol, 3 gals.; sugar, 25 lbs.; water to fill a barrel.

Mash the grapes without breaking the seed; then put them into a barrel with the sugar and alcohol, and fill up with rain water, and let it lie a few weeks in the sun; or if the weather has become cold, in a warm place; then in the cellar until spring; then rack off and bottle, or place in perfectly clean kegs or barrels, and you have a better article than nine-tenths of what is represented as imported Port.

14. Cider Wine.—Prof. Horsford, a celebrated chemist, communicated the following recipe to the Horticultural Society of Massachusetts, and recommends it for general trial:

"Let the new cider from sour apples, (ripe, sound fruit preferred,) ferment from 1 to 3 weeks, as the weather is warm or cool. When it has attained to a lively fermentation, add to each gallon, according to its acidity, from ½ a lb. to 2 lbs. of white crushed sugar, and let the whole ferment until it possesses precisely the taste which it is desired should be permanent. In this condition pour out a quart of the cider and add for each gallon ¼ oz. of *sulphite of lime*, not sulphate. Stir the powder and cider until intimately mixed, and return the emulsion to the fermenting liquid. Agitate briskly and thoroughly for a few moments, and then let the cider settle. Fermentation will cease at once. When, after a few days, the cider has become clear, draw off carefully, to avoid the sediment, and bottle. If loosely corked, which is better, it will become a sparkling cider wine, and may be kept indefinitely long."

This has been tried with varied success; those who do not think it too much to follow the directions, obtain a good article, but others, supposing it to do just as well without sugar, or drawing off, or bottling, have found but little satisfaction—they have no reason to expect any; and yet they might be well satisfied to obtain a good wine from the orchard, even with *all* the above requisitions.

15. Grape Wine.—"Ripe, freshly picked, and selected, tame grapes, 20 lbs.; put them into a stone jar and pour over them 6 qts. of boiling soft water; when sufficiently cool to allow it, you will squeeze them thoroughly with the hand; after which allow them to stand 3 days on the pomace, with a cloth thrown over the jar, then squeeze out the juice and add 10 lbs. of nice crushed sugar, and let it remain a week longer in the jar; then take off the scum, strain and bottle, leaving a vent, until done fermenting, when strain again and bottle tight, and lay the bottles on the side in a cool place."

This wine is the same as used by the Rev. Orrin Whitmore, of Saline, Mich., for sacramental purposes. I have tasted it myself, and would prefer it for medicinal uses to nine-tenths of the wines sold in this country. With age, it is nice. I am of the opinion that it might just as well remain in the jar until it is desired to bottle, and thus save the trouble of the extra straining. For I have now wine four years

old in my cellar, made in Evansville, Ind., from the grape, which was made without the addition of any particle of matter whatever. Simply the juice pressed out, hauled in from the vineyard, put into very large casks in a cool cellar, not even racked off again under one year from the time of making. It tastes exactly like the grape itself. This, you will perceive, saves much trouble in racking, straining, etc. I am told by other wine makers, also, that if care is observed when the juice is pressed out to keep clear of the pomace, that wine is better to stand without racking or straining, and that nothing is found in the barrels, after the first year, save the crude tartar or wine-stone, as some call it, which all grape wine deposits on the sides of the cask. These wines are every way appropriate for sacramental and medicinal purposes, and far more pure than can be purchased once in a hundred times, and if one makes his own, he has the satisfaction of *knowing* that his wines are not made of what is vulgarly yet truly called "*rot-gut whisky.*"

16. Coloring for Wines.—White sugar, 1 lb.; water, 1 gill; put into an iron kettle, let boil, and burn to a red black, and thick; remove from the fire and add a little hot water to keep it from hardening as it cools; then bottle for use.

Any of the foregoing wines can be colored with this, as desired but for family use I never use any color.

17. Stomach Bitters, Equal to Hostetter's, for One-Fourth its Cost; and Schiedam Schnapps Exposed.—European gentian root, 1½ ozs.; orange peel, 2½ ozs.; cinnamon, ¼ oz.; anise seed, ½ oz.; coriander seed, ½ oz.; cardamon seed, ⅛ oz.; unground Peruvian bark ½ oz.; gum kino, ¼ oz.; bruise all these articles, and put them into the best alcohol, 1 pt.; let it stand a week, and pour off the clear tincture; then boil the dregs a few minutes in 1 qt. of water, strain and press out all the strength; now dissolve loaf sugar, 1 lb., in the hot liquid, adding 3 qts. cold water, and mix with the spirit tincture first poured off, or you can add these, and let it stand on the dregs if preferred.

18. NOTE.—Schiedam Schnapps, Falsely so Called.—It is generally known that in Schiedam, Holland, they make the best quality of gin, calling it "Schiedam Schnapps;" consequently it might be expected that unprincipled men would undertake its imitation; but hardly could it have been expected that so base an imitation would start into existence under the guidance of a man who, at least, calls himself *honorable.*

"Take gentian root, ¼ lb.; orange peel, ¼ lb.; puds, ½ lb.; (but if this last cannot be obtained, poma aurantior, unripe oranges,) or agaric, ¼ lb.; best galangal, ¼ lb.; centaury, ¼ lb.;—cost, $1.20. Put pure spirit, 10 gals., upon them, and let them stand 2 weeks; stir

it every day, and at the end of that time put 3 gals. of this to one barrel of good whisky; then bottle and label."

And here follows the label:

"AROMATIC SCHIEDAM SCHNAPPS, A SUPERLATIVE TONIC, DIURETIC, ANTI-DYSPEPTIC, AND INVIGORATING CORDIAL.—THIS MEDICAL BEVERAGE is manufactured at Schiedam, in Holland, and is warranted free from every injurious property and ingredient, and of the best possible quality. Its extraordinary medicinal properties in Gravel, Gout, Chronic Rheumatism, Incipient Dropsy, Flatulence, Colic Pains of the Stomach or Bowels, whether in adults or infants, in all ordinary cases of obstruction in the Kidneys, Bladder, and Urinary Organs, in Dyspepsia, whether Acute or Chronic, in General Debility, Sluggish Circulation of the Blood, Inadequate Assimilation of Food and Exhausted Vital Energy, are acknowledged by the whole medical faculty, and attested in their highest written authorities."

I purchased the foregoing recipe of an extensive dealer in Evansville, Ind. He put up the *stuff* in quart bottles, and labeled it as I have shown you. His label was got up in splendid style, *bronzed letters*, and sent out to the world as *pure "Schiedam Schnapps," at $1 per bottle.*

I have given you the whole thing, that the *thousands* into whose hands this book may fall, shall know what confidence, or that *no confidence* whatever, can be placed in the "advertised nostrums" of the day, but that the only security we have is to *make our own*, or go to those whom we *know* to be scientific. *Obtain their prescription and follow their counsel.* Every person knows that *real* Holland Gin possesses diuretic and other valuable properties; and who would not suppose he was getting a *genuine* article from this *flaming, bronze-crested label*, pointing out especially all the complaints that *Schiedam lovers are wont to complain of?* And yet not one drop of gin to a barrel of it! And my excuse for this *exposure* is, that *they* and *all* who may have an occasion to use such articles, may know that "good whisky" ought to be afforded at less than $4 per gallon, *even* if $1.20 worth of bitter tonics are put into 3½ barrels of the *precious stuff.*

Then take our advice, where gin or other liquor is needed, as mentioned in the first recipe in the Medical Department.

APPENDIX TO SALOON DEPARTMENT.

BY THE PUBLISHER.

Apple Wine.—Pure cider made from sound, dry apples, as it runs from the press. Put sixty pounds of brown sugar into fifteen gallons of the cider and let it dissolve, then put the mixture into a clean barrel and fill the barrel up to within two gallons of being full with clean cider; put the cask in a cool place, leaving the bung out forty-eight hours, then put in the bung with a small vent, until fermentation wholly ceases, and bung up tight, and, in one year, the wine will be fit for use. This wine requires no racking; the longer it stands upon the lees the better.

2. Blackberry Wine.—Gather the fruit when ripe, on a dry day. Put into a vessel, with the head out, and a tap fitted near the bottom; pour on boiling water to cover it. Mash the berries with your hands, and let them stand covered till the pulp rises to the top and forms a crust, in three or four days. Then draw off the fluid into another vessel, and to every gallon add one pound of sugar; mix well, and put it into a cask, to work for a week or ten days, and throw off any remaining lees, keeping the cask well filled, particularly at the commencement. When the working has ceased, bung it down; after six to twelve months it may be bottled.

3. To make a wine equal to Port, take ripe blackberries, press the juice from them, let it stand thirty-six hours to ferment (lightly covered) and skim well, then to every gallon of the juice add one quart of water and three pounds of sugar; let it stand in an open vessel twenty-four hours. Strain and barrel it, let it stand six months, then bottle and cork close. It improves by age.

4. Cherry Wine.—Pick and press out the juice of good cherries, White or Black Hearts, or May Dukes, without breaking the stones. (This wine is much improved by adding rasps, and red currants; an addition of black currants causes it to resemble port). To every gallon put 2 lbs. of fine loaf sugar. Put in a cask till the fermentation ceases, stop it close. In three or four months, bottle it, and in five or six weeks it will be fit to drink.

5. Currant Wine.—Gather the currants when ripe, strip them and squeeze out the juice; to one gallon of the juice put two gallons

of cold water and two spoonfuls of yeast; let it ferment two days; strain through a hair sieve; and to every gallon of liquor add three lbs. of loaf sugar, stir it well together, put it in a good cask; to every 10 gallons of wine put one quart of brandy; close well up and let it stand four months, then bottle it; a few raspberries will improve the flavor.

Blackberry Brandy.—To half a gallon of blackberry juice put one pound and a half of lump sugar, half an ounce of cinnamon, half an ounce of grated nutmeg, quarter of an ounce of cloves, and one ounce of allspice. Boil it a few minutes, and when cool, add one pint of brandy. This is an invaluable remedy for diarrhœa.

2. Cherry Brandy.—Cherries 36 lbs; half red and half black; squeeze them with the hands, and add 1½ gallons of brandy. Let them infuse 24 hours; then put the bruised cherries and liquor into a canvass bag, a little at a time, and press it as long as it will run. Sweeten with fine sugar, and let it stand a month; bottle off, putting loaf sugar into every bottle.

3. Another.—To every gallon of brandy put 4 lbs. of red cherries, 2 lbs. of black, 1 quart of raspberries, with a few cloves, a stick of cinnamon, a little orange peel; closely stop for a month in a barrel; bottle off as before.

Ginger Beer.—The following recipe for making a very superior ginger beer is taken from the celebrated treatise of Dr. Pereira on Diet. The honey gives the beverage a peculiar softness, and from not being fermented with yeast, it is less violent in its action when opened, but requires to be kept a somewhat longer time before use. White sugar, five pounds; lemon juice, one quarter of a pint; honey, one quarter of a pound; ginger, bruised, five ounces; water, four gallons and a half. Boil the ginger in three quarts of the water for half an hour, then add the sugar, lemon juice and honey, with the remainder of the water, and strain through a cloth; when cold, add a quarter of the white of an egg, and a small teaspoonful of essence of lemon; let the whole stand four days and then bottle; it will keep for many months. This quantity will make 100 bottles; the cost being, sugar, five pounds, 2s.; lemon juice, 2d.; honey, 3d.; best white ginger, 2d.; egg and essence of lemon, 2d.: total, 2s. 9d. Ginger-beer bottles may be obtained at the potteries at 10s. to 12s. per gross, and corks at 8d. to 1s. per gross.

2. Another.—White sugar, twenty pounds; lemon or lime juice eighteen (fluid) ounces; honey, one pound; bruised ginger, twenty-two ounces; water, eighteen gallons. Boil the ginger in three gallons of water for half an hour, then add the sugar, the juice, and the honey, with the remainder of the water, and strain through a cloth. When cold add the white of one egg, and half an ounce (fluid) of essence of

lemon; after standing four days, bottle. This yields a very superior beverage, and one which will keep for many months.

3. **Another, Cheap.**—Sugar, 1 lb.; boiling water, 1 gallon; ginger, ¾ oz., and a lemon sliced thin. Stir till all is mixed. Cool, and add a table-spoonful of yeast. Let it stand 20 hours, then strain, bottle, and tie down the corks. Will be prime in a few days.

4. **Another.**—To every gallon of spring water, add 1 oz. of sliced white ginger, and 1 lb. of white sugar, or 1¼ lb., if you like. Boil nearly an hour. Then add ½ oz. of lemon juice to every gallon; strain, cool, and add yeast, 1 tablespoonful or rather more to a gallon. In 48 hours, add a little isinglass, and the white of one or two eggs. Put into the cask, and let it stand 24 hours longer. Bottle and cork well.

5. **Another.**—Ginger, 3 ozs.; sugar, 4 lbs.; cream-of-tartar, ½ oz.; essence of lemon, ¼ oz.; the juice and peel of two lemons; brandy, ½ pint; yeast, quarter of a pint; water, 4 gallons. Bruise the sugar and ginger; boil 25 minutes; pour it boiling upon the lemon, tartar, essence, etc. Stir well; nearly cool, and add the yeast; let it work three days, skimming well; then strain into a cask; add the brandy; bung down close; and in a fortnight, draw off, and bottle.

6. **Another, For Six Gallons.**—Bruised ginger, 8 ozs.; cream-of-tartar, 6 ozs.; loaf sugar, 6 lbs.; water, 6 gallons; three unpeeled lemons, sliced. As soon as the water boils pour it on the ingredients, and stir well. Add a small portion of yeast. Some prefer the addition of 1 lb. of honey. After fermentation, strain, and bottle. Or strain, and bottle, without previously adding yeast.

7. **Another, Common.**—Brown Sugar or Treacle, 1½ lb., water 1½ gallon, 1 oz. of ginger, ground, and a lemon, if preferred. Boil, and then add yeast.

8. **Another, Instantly Made.**—Sugar, 1½ lb.; bruised ginger, 1¼ oz.; water, 1 quart. Boil down to a syrup. When cool, strain, and add the juice of a lemon, or ¼ oz. of citric acid, and a little brandy. Keep this always by you in a bottle. It is to be used along with Carbonate of Soda and Tartaric Acid. First dissolve in water a quarter of a tea-spoonful of Tartaric Acid, into which put Ginger Syrup according to taste; then dissolve half a tea-spoonful of carbonate of soda in water; unite the two mixtures, and you will have a grateful beverage.

9. **Another, Quickly Made.**—Dissolve 4 ozs. of candied ginger in 2¼ gallons of boiling water, add 2 lbs. of sugar; add ¼ oz. of citric acid, powdered when nearly cold, and two table-spoonfuls of yeast.

10. **Bran Beer.**—Good bran, 1 bushel (to produce 18 gallons) hops, ¼ pound. Mash with hot water, and ferment in the usual way.

This beer will cost about three cents per gallon. Two or three pounds of sugar improve it, or four or five of molasses improve it.

Ginger, Syrup of.—Macerate, 1½ oz. of beaten ginger in a quart of boiling water, closely covered for twenty-four hours; then strain the infusion, make it into a syrup by adding at least two parts of fine loaf sugar, dissolved and boiled up in a hot water bath.

Ginger Beer Powders.—Blue paper; Carbonate of Soda, thirty grains; powdered ginger, five grains; ground white sugar, one drachm to one drachm and a half; essence of lemon, one drop. Add the essence to the sugar, then the other ingredients. A quantity should be mixed and divided, as recommended for Seidlitz powders.—White paper: Tartaric acid, thirty grains. *Directions.*—Dissolve the contents of the blue paper in water; stir in the contents of the white paper, and drink during effervescence. Ginger-beer powders do not meet with such general acception as lemon and kali, the powdered ginger rendering the liquid slightly turbid.

2. For the white Paper.—Loaf sugar, powdered, 2 drachms; ginger, powdered, 6 or 7 grains; carbonate of soda, 26 grains. Mix well. *For the Blue Paper*—Citric Acid, 30 grains, or tartaric acid, 28 grains (which you please). Dissolve each powder in *nearly* half a tumbler of water, and mix together.

Ginger, Tincture of.—Ginger, 1 oz.; proof spirits, 1 pint. Digest in a gentle heat seven days, and strain. A good stimulant, and expellant of wind; used as a corrective to purgative draughts.

Lemonade.—Powdered sugar, four pounds; citric or tartaric acid, one ounce; essence of lemon, two drachms; mix well. Two or three teaspoonfuls make a very sweet and agreeable glass of extemporaneous lemonade.

2. Milk Lemonade.—Dissolve three quarters of a pound of loaf sugar in one pint of boiling water and mix with them one gill of lemon juice, and one gill of sherry, then add three gills of cold milk. Stir the whole well together, and strain it.

Champagne, Summer.—To four parts of seltzer water add one of Moselle wine (or hock), and put a teaspoonful of powdered sugar in to a wineglassful of this mixture; an ebullition takes place, and you have a sort of champagne which is more wholesome in hot weather than the genuine wine known by that name.

2. Champagne Cider.—Cider, eighteen gallons; spirit, three pints; sugar, five pounds. Mix and let them rest for a fortnight, then fine with skimmed milk, 1 pint. Bottle in champagne bottles: when opened, it will be found to approach very nearly to genuine champagne.

☞ Cider, 18 gallons; spirit, 3 pints; sugar, 5 lbs.; skimmed milk, 1 pint.

Cider.—A beverage made from the juice of the apple, and for

which sour and rough-tasted apples are generally preferred. The process of making cider varies in different localities, but in every case essentially consists of the collection of the fruit, and the expression and fermentation of the juice. The *collection of the fruit* should not be commenced before it has become sufficiently mature. The apples, after being gathered, are usually left for fourteen or fifteen days in a barn or loft to mellow, during which time the mucilage is decomposed, and alcohol and carbonic acid developed. The *expression of the juice* is the next step in cider-making. The apples are ground to a pulp in a mill, consisting of two fluted cylinders of hard wood or cast iron working against each other. The pulp is afterwards put into coarse strong bags, and pressed with a heavy weight so as to squeeze out all the juice. This is then placed in large, open tubs, and kept at a heat of about sixty degrees. After two or three days for weak cider, and eight or ten days for strong cider, or as soon as the sediment has subsided, the liquor is "racked off" into clean casks. The casks are then stored in a cellar, shaded barn, or other cool place, where a low and regular temperature can be insured, and are left to mature and ripen until the following spring, when it may be re-racked for use. The refuse pulp is an acceptable food for pigs and store cattle.

Preparatory to *bottling cider*, it should be examined, to see whether it is clear and sparkling. If not so, it should be clarified, and left for a fortnight. The night previous to bottling, the bung should be taken out of the cask, and the filled bottles should not be corked down until the day after; as, if this is done at once, many of the bottles will burst by keeping. The best corks should be used. Champagne bottles are the best for cider. When the cider is wanted for immediate use, or for consumption during the cooler season of the year, a small piece of lump sugar may be put into each bottle before corking it. When intended for keeping, it should be stored in a cool cellar, when the quality will be greatly improved by age.

Ice Cream.—Put into a bucket 1 pound of ice broken very small, throw two handfuls of salt among it, and have it in the coolest place you can find. Put the cream into an ice pot and cover it, immerse it in the ice and draw the ice around the pot so as to touch every part; in a few minutes put in a spoon and stir the parts that lie around the edges to the center, stirring quickly, increases the cold. There should be holes in the bucket to let out the water as the ice melts.

The cream for icing is thus made: New milk, one quart; yolks of six eggs; fine sugar, four ounces. Mix, strain, heat gently, then cool.

2. Strawberry Ice Cream.—Take one pint of strawberries, one pint of cream, nearly half a pound of powdered white sugar, the juice of a lemon; mash the fruit through a sieve, and take out the seeds:

mix with the other articles, and freeze. A little new milk added makes the whole freeze more quickly.

3. **Raspberry Ice Cream.**—The same as strawberry. These ices are often colored by cochineal, but the addition is not advantageous to the flavor. Strawberry or raspberry jam may be used instead of the fresh fruit, or equal quantities of jam and fruit employed. Of course the quantity of sugar must be proportionately diminished.

Strawberry-Water Ice.—One large pottle of scarlet strawberries, the juice of a lemon, a pound of sugar, or one pint of strong syrup, half a pint of water. Mix,—first rubbing the fruit through a sieve,—and freeze.

2. **Raspberry-Water Ice.**—In the same manner.

3. **Lemon-Water Ice.**—Lemon juice and water, each half a pint; strong syrup, one pint: the rind of the lemons should be rasped off, before squeezing, with lump sugar, which is to be added to the juice; mix the whole; strain after standing an hour, and freeze. Beat up with a little sugar the whites of two or three eggs, and as the ice is beginning to set, work this in with the spatula, which will much improve the consistence and taste.

4. **Orange-Water Ice.**—In the same way.

Mead, Metheglin, Hydromel, or Bragget.—Various names for an intoxicating beverage made from honey, in use from the most remote ages among the ancient Britons and Scandinavians, and regarded by those rude nations as an earthly nectar, and a drink immeasurably superior to the wine of the grape or barley, as the various potations made from grain were called. Among the Welsh, mead, or metheglin, is still occasionally used, though as a general beverage it has long ceased to be esteemed. There are many modes of preparing this heavy drink; some by simply fermenting the honey and water, others by making a strongly spiced decoction of the ingredients before allowing the mass to work. Those who are desirous of knowing how to manufacture the old English bragget, a beverage sold as one of the choicest articles in the country, will find the following receipe sufficiently near to make a very potent liquor:

To 28 pounds of honey add 8½ gallons of boiling water: mix thoroughly. Boil in half a gallon of water the peel of 3 lemons, 1 ounce of ginger, 2 drachms of mace, 1 drachm of cloves, and a small bundle of rosemary: strain, and add immediately to the hot mixture; stir the whole together, and set aside in a cask till quite cold. Mix two large spoonfuls of fresh yeast with a quart of the liquor; pour into the cask, and allow it to remain till the fermentation has taken place, when the cask is to be bunged up. To obtain metheglin in perfection, it should remain a *year* in the wood untouched. It is then to be bottled, and kept for at least six months before being used, when a very agreeable and potent liquor will be obtained.

Bottling and Fining.—Corks should be sound, clean, and sweet. Beer and porter should be allowed to stand in the bottles a day or two before being corked. If for speedy use, wiring is not necessary. Laying the bottles on their sides will assist the ripening for use. Those that are to be kept should be wired, and put to stand upright in sawdust. Wines should be bottled in spring. If not fine enough, draw off a jugful and dissolve isinglass in it, in the proportion of half an ounce to ten gallons, and then pour back through the bung-hole. Let it stand for a few weeks longer. Tap the cask above the lees. When the isinglass is put into the cask, stir it round with a stick, taking great care not to touch the lees at the bottom. For white wine only, mix with the isinglass a quarter of a pint of milk to each gallon of wine, some whites of eggs, beaten with some of the wine. One white of an egg to four gallons makes a good fining.

To Sweeten Casks.—Mix half a pint of vitriol with a quart of water, pour it into the barrel, and roll it about; next day add one pound of chalk, and roll again. Bung down for three or four days, then rinse well with hot water.

2. Another.—To scour casks effectually rinse them with a solution of vitriol and water, which will entirely deprive them of their foulness.

To Loosen Glass Stoppers of Bottles.—With a feather rub a drop or two of salad oil round the stopper, close to the mouth of the bottle or decanter, which must then be placed before the fire, at the distance of about eighteen inches; the heat will cause the oil to insinuate itself between the stopper and the neck. When the bottle or decanter has grown warm, gently strike the stopper on one side, and then on the other, with any light wooden instrument; then try it with the hand; if it will not yet move, place it again before the fire, adding another drop of oil. After a while strike again as before; and, by persevering in this process, however tightly it may be fastened in, you will at length succeed in loosening it. This is decidedly the best plan.

Freezing Mixture Without Ice.—Nearly fill a gallon stone bottle with hot spring water, (leaving room for about one pint) and put in two ounces of refined nitre. The bottle must be stopped very close and let down into a deep well. After three or four hours it will be completely frozen, but the bottle must be broken to procure the ice. If the bottle is moved up and down so as to be sometimes in and sometimes out of the water, the consequent evaporation will hasten the process.

2. Washing Soda as a Freezing Mixture.—If, however, nitrate of ammonia in coarse powder is put into the cooler, and there is then added twice its weight of freshly crushed washing soda, and an equal quantity of the coldest water that can be obtained, an intensely powerful frigorific mixture is the result, the cold often falling to forty

degrees below freezing. This is by far the most efficacious freezing mixture that can be made without the use of ice or acids. But, unfortunately, it has an almost insuperable objection, that the nitrate of ammonia is decomposed by the soda, and cannot be recovered by evaporation; this raises the expense to so great a height, that the plan is practically useless.

3. The New Freezing Preparation Without Ice or Acids obviates all these objections. It is easy of use, not corrosive in its properties, and capable of being used at any time, at a minute's notice; is easy of transport, being in a solid form, and, moreover, moderate in its cost. In India, to which country it has been exported in enormous quantities, it has excited the most lively interest, and the Nepaulese princes, when in London, paid the greatest attention to its use. It consists of two powders, the first of which is composed of one part, by weight, of muriate of ammonia, or sal-ammoniac powder, and intimately mixed with two parts by weight of nitrate of potash, or saltpetre. These quantities are almost exactly in (what is called by chemists) the combining proportions of the two salts, and by reacting on each other, the original compounds are destroyed, and in the place of muriate of ammonia and nitrate of potash, we have nitrate of ammonia and muriate of potash; thus we have succeeded in producing nitrate of ammonia at a cheap rate, accompanied by another salt, the muriate of potash, which also produces considerable cold when dissolved: but this mixture, used alone, cannot be regarded as a freezing one, although very efficient in cooling. The other powder is formed simply of the best Scotch soda, crushed in a mortar, or by passing through a mill; although, as hitherto prepared, its appearance has been disguised by the admixture of small quantities of other materials, which have, however, tended to diminish its efficacy. The two powders so prepared must be separately kept in closely-covered vessels, and in as cool a place as possible; for if the crushed soda is exposed to the air, it loses the water it contains, and is considerably weakened in power; and if the other mixture is exposed, it attracts moisture from the air, and dissolves in it—becoming useless. To use the mixture, take an equal bulk of the two powders, mix them together by stirring, and *immediately* introduce them into the ice-pail, or vessel in which they are to be dissolved, and pour on as much water (the coldest that can be obtained) as is sufficient to dissolve them; if a pint measure of each of the powders is used, they will require about a pint of water to dissolve them. More water than is necessary should not be used, as in that case the additional water is cooled instead of the substance that it is wished to freeze. Less than a pint of each powder, and about the same quantity of water, will be found sufficient to ice two bottles of wine, one after the other, in the hottest of weather, if a tub is used of such a size as to prevent the waste of materials.

To Clean Bottles.—There is no easier method of cleaning glass bottles than putting into them fine coals, and well shaking, either with water or not, hot or cold, according to the substance that fouls the bottle. Charcoal left in a bottle or jar for a little time will take away disagreeable smells.

2. To Purify.—Rinse with lime water, or water and powdered charcoal.

Soda Water Powders.—One pound of carbonate of soda, 4d., and thirteen and a half ounces of tartaric acid, at 2s. per pound, supply the materials for 256 powders of each sort. Usual retail price, 1d. for the two powders required for a draught. Put into blue papers thirty grains of carbonate of soda, and into white papers twenty-five grains of tartaric acid. *Directions.*—Dissolve the contents of the blue paper in half a tumbler of water, stir in the other powder, and drink during effervescence. Soda powders furnish a saline beverage which is very slightly laxative, and well calculated to allay the thirst in hot weather.

Cheap and Good Vinegar.—To eight gallons of clear rain water, add three quarts of molasses; turn the mixture into a clean, tight cask, shake it well two or three times, and add three spoonfuls of good yeast, or two yeast cakes; place the cask in a warm place, and in ten or fifteen days add a sheet of common wrapping paper, smeared with molasses, and torn into narrow strips, and you will have good vinegar. The paper is necessary to form the "mother," or life of the vinegar.

Fermentation, To Check.—The least bit of sulphate of Potass. It is applicable to liquors, syrups, preserves, etc.

Bologna Sausages.—Take equal quantities of bacon, fat and lean beef, veal, pork, and beef suet; chop them small, season with pepper salt, etc., sweet herbs, and sage rubbed fine. Have a well-washed intestine, fill, and prick it; boil gently for an hour, and lay on straw to dry. They may be smoked the same as hams.

MEDICAL DEPARTMENT.

I would give an introductory word of *caution* in this Department. Whenever you buy an article of medicine which is not regularly *labeled* by the druggist, have him, in all cases, *write* the name upon it. In this way you will not only save *money*, but perhaps *life*. Arsenic, phosphorus, laudanum, acids, etc., should always be put where children cannot get at them. And always purchase the best quality of drugs, to insure success.

ALCOHOL—In Medicines, Preferable to Brandy, Rum, or Gin of the Present Day.—There is no one thing doing so much to bolster up the tottering yet strong tower of Intemperance, as the old-fogy physicians, who are constantly prescribing these articles to their patients, and one-half of the reason for it is to cover the faults of their own constant use of these beverages. This unnecessary call for these articles thus used as a medicine, keeps up a large demand; and when we take into consideration the almost impossibility of obtaining a genuine article, the sin of prescribing them becomes so much the greater, when it is also known by all really scientific men that with alcohol (which is pure) and the native fruit wines, cider, and cider wines, (which every one can make for themselves, and can thus know their purity,) that all the indications desired to be fulfilled in curing disease can be accomplished without their use.

Then, when it is deemed advisable to use spirits to preserve any bitters or syrups from souring, instead of 1 qt. of brandy, rum, or gin, use the best alcohol, ½ pt., with about 2 or 3 ozs. of crushed sugar for this amount, increasing or lessening according to the amount desired in these proportions. If a *diuretic* effect is desired, which is calculated to arise where gin is prescribed, put 1 dr. of oil of juniper into the alcohol before reducing with the water; or if the preparation admits of it you may put in from 1 to 2 ozs. of juniper berries instead of the oil. If the *astringent* effect is desired, as from brandy, use, say ¼ oz. of gum kino or catechu, either, or half of each may be used. If the *sweating* or opening properties are required, as indicated by the prescription of rum, sweeten with molasses in place of the sugar, and use 1 dr. of oil of caraway, or 1 to 2 ozs. of the seed, for the same amount, as the juniper berries for gin.

If the strength of wine only is desired, use 1 qt. of the ginger wine, or if that flavor is not fancied, use any other of the wines, as preferred by the patient.

But no one should use any of the descriptions of alcohol as a constant beverage, even in medicine, unless advised to do so by a physician *who is not himself a toper.*

If families will follow the directions above given, and use proper care in making some of the various fruit wines as given in this book for medical use, preparing cider, etc., which are often used in prescriptions they would seldom, if ever, be obliged to call for the *pretended* pure brandies, rums, gins, etc., of commerce, and intemperance would die a natural death for want of support.

And you will please allow me here to correct a common error, with regard to the presence of alcohol in wines. It is generally supposed that wine made from fruit, without putting some kind of spirits into it, does not contain any alcohol; but a greater mistake does not exist in the world. Any fruit, the juice of which will not pass into the vinous fermentation by which alcohol is produced, will not make wine at all. Distillation will produce brandy or alcohol from any of these fermented liquors.

There is no wine, of any note, containing less than 10 parts of alcohol to 100 parts of the wine; and from that amount up to 25½ parts; currant, 20½; gooseberry, 11¾; cider, from 5 to 9 parts, porter, 4¼; even small beer, 1¼ parts or qts. to 100 qts.

So it will be seen that every quart of fruit wine not made for medicine, or sacramental purposes, helps to build up the cause (Intemperance) which we all so much desire not to encourage. And for those who take any kind of spirits for the *sake* of the spirit, let me give you the following:

2. "Spiritual Facts.—That whis-key is the *key* by which many gain entrance into our prisons and alms-houses.

3. That *brandy brands* the noses of all those who cannot govern their appetites.

4. That *punch* is the cause of many *un*friendly *punches.*

5. That *ale* causes many *ailings*, while *beer* brings to the *bier.*

6. That *wine* causes many to take a *winding* way home.

7. That *cham*-pagne is the cause of many *real* pains.

8. That *gin slings* have "*slewed*" more than *slings of old.*"

AGUE MEDICINES.—Dr. Krieder's Pills.—Quinine, 20 grs.; Dover's powders, 10 grs.; sub-carbonate of iron, 10 grs.; mix with mucilage of gum arabic and form into 20 pills. DOSE.—Two each hour, commencing 5 hours before the chill should set in. Then take one night and morning, until all are taken.

I cured myself of Ague with this pill after having it hang on to

me for three years with all the common remedies of the day, five weeks being the longest I could keep it off, until I obtained the above pill. This was before I had studied medicine. I have cured many others with it also, never having to repeat the dose only in one case.

In attacks of ague it is best to take an active cathartic immediately after the first "fit," unless the bowels are lax, which is not generally the case, and by the time the cathartic has worked off well, you will be prepared to go ahead with the "cure," as soon as you know its periodical return.

2. For very young *children* nothing is better than 5 or 6 grs. of quinine in a 2 oz. vial, with one table-spoon of white sugar; then fill with water. DOSE.—A tea-spoon given as above, as to time. A thick solution of licorice, however, hides the taste of the quinine quite effectually.

3. Ague Bitters.—Quinine, 40 grs.; capsicum, 20 grs., cloves, ¼ oz.; cream-of-tartar, 1 oz.; whisky, 1 pt.; mix. DOSE.—1 to 2 table-spoons every 2 hours, beginning 8 hours before the chill comes on, and 3 times daily for several days. Or, if preferred without spirits, take the following:

4. Ague Powder.—Quinine, 10 grs.; capsicum, 4 grs.; mix, and divide into 3 powders. DIRECTIONS.—Take one 4 hours before the chill, one 2 hours, and the third one hour before the chill *should* commence, and it will very seldom commence again. Or,

5. Ague Mixture without Quinine.—Mrs. Wadsworth, a few miles south of this city, has been using the following Ague mixture over twenty years, curing, she says, more than forty cases, without a failure. She takes—

Mandrake root, fresh dug, and pounds it; then squeezes out the juice to obtain 1½ table-spoons, with which she mixes the same quantity of molasses; then divides it into 3 equal doses of 1 table-spoon each, to be given 2 hours apart, commencing so as to take an hour before the chill.

It sickens and vomits some, but she says it will scarcely ever need repeating. Then steep dogwood bark, (some call it box-wood,) make it strong, and continue to drink it freely for a week or two, at least.

6. Ague Cure, by a Clairvoyant.—There is no doubt in my mind but what there is much virtue in the following clairvoyant prescription, for I have knowledge of the value of one of the roots. See "Colic Remedy":

Blue vervain, leaf and top, 1 lb.; bone-set, ¼ lb.; best rye whisky, 1 gal.

The dose was not given, but most persons would take a wine-glass five or six times daily.

7. Ague Cured for a Penny.—It has been discovered that nitric

acid is of great value in the treatment of Intermittent Fever, or Ague. A physician administered the article in twenty-three cases of such fever, and it was successful in all but one, in interrupting the paroxysms, and there occurred no relapse.

In the majority of cases, 5 or 6 drops of the strong acid, given in a little gum mucilage, every 8 hours, until 60 drops had been taken, were found sufficient to break the fever, and restore the patient to health.

The foregoing confirms the following:

8. Ague Anodyne.—Muriatic acid and laudanum, of each ½ oz., quinine, 40 grs.; brandy, 4 ozs. Take 1 tea-spoon 9, 6, and 3 hours before the chill, until broken; then at 7, 15, and 21 days after, take 3 doses, and no relapse will be likely to occur.

I am well satisfied that any preparation of opium, as laudanum, morphine, etc., which affects the nerves, is valuable in ague medicine from its intimate connection with, if not entirely confined to, the nervous system; hence the advantage of the first Ague Pill, the opium being in the Dover's powders.

I have given this large number of preparations, and follow with one or two more, from the fact that almost every physician will have a peculiar prescription of his own, and is generally free to contribute his mite for the benefit of the world; and as I have seen about as much of it as most book-makers, I have come in for a large share. The nature of the articles recommended is such also as to justify their insertion in this work.

9. Febrifuge Wine.—Quinine, 25 grs.; water, 1 pt.; sulphuric acid, 15 drops; Epsom salts, 2 ozs.; brandy, 1 gill; loaf sugar, ½ ozs.; color with tincture of red sanders. DOSE.—A wine-glass 4 times per day.

This is highly recommended by a regular practicing physician in one of the ague holes (Saginaw) of the west. It, of course, can be taken without any previous preparation of the system.

10. Tonic Wine Tincture.—A positive cure for Ague, without quinine. Peruvian bark, 2 ozs.; wild cherry-tree bark, 1 oz.; cinnamon, 1 dr.; capsicum, 1 tea-spoon; sulphur, 1 oz.; port wine, 2 qts. Let stand a week, shaking occasionally. All the articles are to be pulverized. DOSE.—A wine-glass every 2 or 3 hours through the day until broken, then 2 or 3 times per day until all is used.

Always buy your Peruvian bark, and pulverize it yourself, as most of the pulverized article is greatly adulterated. This is the reason why more cures are not performed by it.

11. Soot Coffee—Has cured many cases of Ague, after "everything else" had failed. It is made as follows:

Soot scraped from a chimney, (that from stove-pipes does not do,) 1 tablespoon, steeped in water 1 pt., and settled with 1 egg beaten up

in a little water, as for other coffee, with sugar and cream, 3 times daily with the meals, in place of other coffee.

It has come in very much to aid restoration in Typhoid Fever, bad cases of Jaundice, Dyspepsia, etc., etc.

Many persons will stick up their noses at these "old grandmother prescriptions," but I tell many "upstart physicians" that our grandmothers are carrying more information out of the world, by their deaths, than will ever be possessed by this class of "sniffers," and *I* really thank God, so do *thousands* of others, that He has enabled *me*, in this work, to reclaim such an amount of it for the benefit of the world.

12. Balmony, ⅓ of a pint basin of loose leaves; fill with boiling water and steep; drink the whole in the course of the day, and repeat 3 or 4 days, or until well.

It has cured many cases of Ague. It is valuable in Jaundice, and all diseases of the Liver; and also for worms, by the mouth and by injection. It is also valuable in Dyspepsia, Inflammatory and Febrile diseases, generally.

NIGHT SWEATS—To Relieve.—After Agues, Fevers, etc., and in Consumption, many persons are troubled with "Night Sweats." They are caused by weakness or general debility. For their relief:

Take ess. of tansy, ½ oz.; alcohol, ¼ oz.; water, ¼ oz.; quinine, 15 grs.; muriatic acid, 30 drops; mix. DOSE.—1 tea-spoon in a gill of cold sage tea.

It should be taken two or three times during the day, and at bed time; and the cold sage tea should be used freely as a drink, also, until cured. It will even cure Ague, also, by repeating the above dose every hour, beginning twelve to fifteen hours before the chill.

FEVERS.—General Improved Treatment for Bilious, Typhoid, and Scarlet Fevers, Congestive Chills, etc.; also valuable in Diarrhœa, Summer-Complaint, Cholera-Infantum, and all Forms of Fever in Children.—The symptoms of fever are generally understood, yet I will give the characteristic features by which it will always be detected: Cold chills followed by a hot skin; a quickened pulse, with a weak and languid feeling of distress; also, loss of appetite, thirst, restlessness, scanty excretions; in fact, every function of the body is more or less deranged. Of course, then, that which will restore all the different machinery to healthy action, will restore health. That is what the following Febrifuge has done in hundreds of cases—so attested to by "Old Doctor Cone," from whose work on "Fevers and Febrile Diseases" I first obtained the outlines of the treatment, and it gives me pleasure to acknowledge my indebtedness to him through fourteen years of neighborhood acquaintance, always finding him as willing to communicate as qualified to practice, and

daring, in breaking away from "Medical Society Rules," to accomplish good.

Febrifuge for Fevers in General.—Carbonate of ammonia, 2 drs.; alum, 1 dr.; capsicum, foreign gentian, colombo root, and prussiate of iron, all pulverized, of each ½ dr.; mix, by putting into a bottle, adding cold water, 4 ozs. DOSE.—One tea-spoon to a grown person, every 2 hours, in common cases of fever. It may be sweetened, if preferred. Shake well each time before giving, and keep the bottle tightly corked.

The philosophy of this treatment is, the carbonnate of ammonia neutralizes the acidity of the stomach, and determines to, and relaxes the surface; and with the capsicum is a hundred per cent. more efficient. The alum constringes, soothes, and aids in relieving the irritated and engorged mucous membrane of the stomach, and finally operates as a gentle laxative. The colombo and gentian are gently astringent and stimulating, but chiefly tonic, and the prussiate of iron is tonic; and in their combination are (as experience will and has proved) the most efficient and safe Febrifuge, in all forms and grades of fever yet known. We therefore wish to state that, after twenty-five years experience in the treatment of disease, we have not been able to obtain a knowledge of any course of treatment that will begin to compare with that given above, for the certain, speedy and effectual cure of all forms of fever; and all that is requisite, is, to have sufficient confidence in the course of treatment recommended; to use it from three to five, and in extreme cases, seven days as directed, and that confidence will be inspired in all who use it, whether physician (if unprejudiced) or patient, or the heads of families. Remember, all processes in nature require time for their accomplishment.

After the patient has been twenty-four hours without fever, or if the patient be pale, blanched, with a cool surface and feeble pulse, at the commencement of fever, prepare the following:

2. Febrifuge Tea.—Take Virginia snakeroot and valerian root, of each 2 drs.; boiling water one pt. Pour the boiling water on the roots and steep ½ an hour, and give a tea-spoon of the Febrifuge and a table-spoon of this Tea together every 2 hours, and after he has been another 24 hours without fever, give it every 3 or 4 hours, until the patient has good appetite and digestion, then 3 times daily, just before meals, until the patient has gained considerable strength, when it may be entirely discontinued; or he may continue the simple infusion, to aid digestion.

A strong tea of wild cherry bark makes the best substitute for the snakeroot tea, and especially if mercury has been previously used in the case; and if it has, it is best to continue the cherry bark tea until the patient is entirely recovered.

A patient using this treatment, if bilious, may vomit bile a few times, or if there is congestion of the stomach, he will probably vomit occasionally for a few hours, but it will soon subside. It will not purge, except a patient be very bilious, in which case there will probably be two or three bilious discharges; but it gives so much tone to the action of the stomach and bowels as to secure regular operations; but if the bowels should not be moved in two or three days, give injections of warm water, or warm water with a little salt in it.

Give the patient all the plain, wholesome diet, of any kind, he will take, especially broiled ham, mush and rich milk, boiled rice, milk or dry toast, hot mealy potatoes, boiled or roasted, with good fresh butter, etc., etc.; and good pure cold water, or tea and coffee, seasoned to the taste, as drinks, and keep the person and bed clean, and room quiet and undisturbed by conversation, or any other noise, and see that it is well ventilated.

If there should be extreme pain in the head when the fever is at the highest, or in the back or loins, and delirium at night, with intolerance of light and noise; in such cases, in addition to keeping the room cool, dark, and quiet, and giving the febrifuge regularly, as above directed, take the following:

3. Fever Liniment.—Sulphuric ether and aqua ammonia, of each 1 oz.; muriate of ammonia, ½ oz.; mix, and shake the bottle, and wet the scalp and all painful parts, every 2 or 3 hours, until the pain abates. Keep tightly corked.

After the application of the liniment, fold a muslin cloth four or five thicknesses, dip it in cold water, and apply it to the head or any part afflicted with severe pain; or to the pit of the stomach, if there be much vomiting; and it may be renewed every three or four hours.

Besides the above treatment, dip a towel in cold water, and rub the patient off briskly and thoroughly, and be careful to wipe perfectly dry, with a clean, hot and dry towel; this may be repeated every three or four hours, if the skin be very hot and dry; but if the surface be pale, cool, moist, livid, or lead-colored, omit the general sponging; but the face, neck and hands may be washed occasionally, but be sure to wipe perfectly dry with a clean, hot and dry towel. But if he be very pale and blanched, with a cool or cold surface, or have a white circle around his mouth and nose, or be covered with a cold, clammy perspiration, give the Febrifuge every hour, until the above symptoms disappear. giving the patient hot coffee or tea, pennyroyal, sage, balm, or mint tea, as hot as he can sup them, and as freely as possible, and make hot applications to his person, and put a bottle of hot water to the soles of his feet; and after this tendency to prostration is overcome, then give the Febrifuge once in two hours as before only.

Children will use the medicine in all respects as directed for grown persons, giving to a child one year old a fourth of a tea-spoon, or

fifteen drops; if under a year old, a little less, (we have frequently arrested Cholera Infantum with the Febrifuge, in children under six months old, and in some instances under a month old,) and increase the dose in proportion to the age above a year old, giving half a tea-spoon to a child from three to six, and three-fourths of a tea-spoon from six to ten years old, and so on; and be sure to offer children some food several times a day, the best of which is broiled smoked ham, good stale wheat bread boiled in good rich milk, mush and milk, boiled rice, etc. but animal diet agrees best, and especially in cases or Summer Complaint, or Cholera Infantum, the diet had better be almost exclusively animal. It will be difficult to use the infusion of snakeroot with children that are too young to obey the mandate of parents, and the Febrifuge may be made sweet, with white or loaf sugar, for young children, so as to cover its taste as much as possible, but older children will be benefited very much by the use of the infusion of snakeroot and valerian, and should take it as prescribed for adults, of course, adapting the dose to the age of the patient.

4. NOTE.—The above treatment, if persevered in for a short time, is effectual in arresting Diarrhœa, Summer Complaint, Cholera Infantum, and all forms of Fever in children. Give it every two hours, or if the patient be very feeble and corpse-like, give it every hour until there is reaction, and then give it every two hours, as prescribed for fever in general, and you will be satisfied with the result after a short time.

5. Typhoid Fever.—If the patient be Typhoid, that is, if his tongue be brown or black, and dry in the centre, with glossy red edges; if he have Diarrhœa, with thin, watery, or muddy stools, and a tumid or swollen belly, he will probably have a rapid, or frequent, and small pulse, and be delirious and rest but little at night; under these circumstances, give the Febrifuge in the Tea, No. 2, as for fevers in general, every two hours, and give, also, the following:

6. Febrifuge Balsam.—Gum camphor, 30 grs.; balsam copaiba, sweet spirits of nitre, compound spirits of lavender, of each ½ oz.

Shake the vial, and give forty drops every four hours, in with the other medicine, until the tongue becomes moist. and the Diarrhœa is pretty well subdued, when you will discontinue this preparation, and continue the Febrifuge and snakeroot tea. as directed for fever in general.

NOTE.—We do not believe that one case of fever in a thousand will develop Typhoid symptoms, unless such cases have been injured in the treatment of the first stage, by a reducing course of medicine, as bleeding, vomiting, emetic tartar, purging, especially with calomel, and compound extract of colocynth, or oil, salts, or infusion of senna, and the common cooling powder, which is composed of saltpetre or nitre, and tartar emetic or ipecac, all of which irritate the mucous membrane

of the stomach and bowels, and consequently produce determination of blood to these parts, that results in irritation, engorgement, congestion, inflammation, and consequently Typhoid Fever.

If fever is attended with the Dysentery, or Bloody-Flux, it should be treated in the same manner precisely as Typhoid Fever, as it is nothing but Typhoid Fever with inflammation of the large, and sometimes small bowels. The treatment given for Typhoid Fever above, will cure all forms of Dysentery as it does fever, but the bloody and slimy discharges will continue for two or three days after the fever is subdued and the appetite and digestion are restored, and at times, especially if the patient discharge bile, which will be green, there will be a good deal of pain at stool, which, however, will soon subside.

7. Scarlet Fever.—If you have Scarlet Fever, treat it in all respects as fever in general, and if the patient's throat should show any indications of swelling, apply the Fever Liniment No. 3, and make the application of cold water in the same manner as there directed; and it had better be repeated every three or four hours until the swelling is entirely subdued, when the wet cloth should be substituted by a warm, dry, flannel one; but if the patient's throat should ulcerate, give a few drops of the Febrifuge every half hour, or hour, until the dark sloughs separate, and the throat looks red and clean, when you need only give the medicine at regular intervals, as recommended for fever in general, that is, every two hours. If this treatment be pursued at the onset, the throat will seldom, if ever, ulcerate.

8. Congestive, or Sinking Chill.—In case of Congestive, or Sinking Chill, give the Febrifuge as directed for fever in general; but if the patient be insensible and cold, or drenched in a cold perspiration, give the Febrifuge in a table-spoon of the snakeroot and valerian tea every hour until the patient becomes warm, and then give it every two hours to within twelve hours of the time he anticipates another chill, when you will give the following:

9. Stimulating Tonic.—Sulphate of quinine, 20 grs.; pulverized capsicum, 30 grs; pulverized carbonate of ammonia, 90 grs.; mix and put into a bottle, and add 15 tea-spoons of cold water, and give a tea-spoon, together with a tea-spoon of the Febrifuge, every hour, either alone, or what is better, in a tea-spoon of the snakeroot and valerian tea, for 15 hours.

The patient should lie in bed and drink freely of pennyroyal tea, or hot coffee, or some other hot tea, and after the time has elapsed for the chill, give the same as for fever in general, until the patient is entirely recovered. The above treatmeat will arrest any form of Ague, and the after treatment will, with any degree of care, prevent its return. The Ague may be arrested most speedily, by taking one grain of

quinine in a tea-spoon of the Febrifuge every hour for six hours preceding a paroxysm, and then pursue the above tonic course.

I have given the foregoing treatment for fevers, because I know that it is applicable in all cases, and that the articles are kept by all druggists. But there is a better, because quicker method of cure, and I am very sorry to say that for want of knowledge in regard to the value of medicine, it is not usually kept by druggists. I mean the Tincture of Gelseminum. It is an unrivaled Febrifuge. It relaxes the system, without permanent prostration of strength. Its *specific action* is to cloud the vision, give double-sightedness and inability to open the eyes, with distressed prostration; which will gradually pass off in a few hours, leaving the patient refreshed, and if combined with quinine, completely restored. To administer it:

10. Take the tincture of gelseminum, 50 drops, put into a vial, and add 5 tea-spoons of water; quinine, 10 grs. Shake when used DOSE.—One tea-spoon in half a glass of sweetened water, and repeat every two hours.

Watch carefully its action, and as soon as you discover its specific action, as mentioned above, give no more.

Dr. Hale, of this city, one of the more liberal class of physicians (and I use the term liberal as synonymous with the term successful, prefers to add twenty-five drops of the tincture of veratrum viride with the gelseminum, and give as there directed. And in case that their full specific action should be brought on, give a few spoons of brandy, to raise the patient from his stupor, or what is preferable:

11. Carbonate of ammonia, ¼ oz.; water, 4 ozs.; mix. DOSE.—One table-spoon every 15 or 20 minutes, until revived.

If Dr. Hale's addition should be used, it will be found applicable in all cases of fever, except in Typhoid accompanied with its own excessive prostration; without the addition of the veratrum it is applicable in all cases of fever above described. Of course, in all cases where the fever is thus subdued, you will continue quinine, or some other appropriate tonic treatment, to perfect a cure, and prevent a relapse. And it might not be amiss here to give a plan of preparing a nourishing and agreeable lemonade for the sick, and especially for persons afflicted with fever:

12. Lemonade, Nourishing, for Fever Patients.—Arrowroot, 2 or 3 tea-spoons, rubbed up with a little cold water, in a bowl or pitcher which will hold about 1 qt.; then squeeze in the juice of half of a good sized lemon, with two or three table-spoons of white sugar, and pour on boiling water to fill the dish, constantly stirring whilst adding the boiling water.

Cover the dish, and when cold, it may be freely drank to allay thirst, as also to nourish the weak. But some will prefer the following:

13. Prof. Hufeland's Drink for Fever Patients or Excessive Thirst.—Cream of tartar, ½ oz.; water, 3 qts.; boil until dissolved; after taking it from the fire, add a sliced orange, with from 1½ to 3 ozs. of white sugar, according to the taste of the patient; bottle and keep cool.

To be used for a common drink in fevers of all grades, and at any time when a large amount of drink is *craved* by the *invalid.* Neither is there any bad taste to it for those in health.

UTERINE HEMORRHAGES.—Prof. Platt's Treatment, Twenty Years without a Failure.—Sugar of lead, 10 grs.; ergot, 10 grs.; opium, 3 grs.; ipecac, 1 gr.; all pulverized and well mixed. DOSE.—10 to 12 grs., given in a little honey or syrup.

In very bad cases after childbirth, it might be repeated in thirty minutes, or the dose increased to fifteen or eighteen grains; but in cases of rather profuse wasting, repeat it once at the end of three hours, will usually be found all that is necessary. If not, repeat occasionally, as the urgency of the case may seem to require.

Prof. Platt is connected with Antioch College, O., and has been a very successful practitioner.

DYSPEPSIA.—In the good old days of corn bread and crust coffee, there was but little trouble with Dyspepsia; but since the days of fashionable intemperance, both in eating and drinking, such as spirituous liquors, wines, beers, ale, tea, and coffee, hot bread or biscuit, high seasoned food, overloading the stomach at meals, and constant eating and drinking between meals, bolting the food, as called—that is, swallowing it without properly chewing—excessive venery, want of out-door exercise, with great anxiety of mind as to how the means can be made to continue the same indulgences, etc., all have a tendency to debilitate the stomach, and bring on, or cause Dyspepsia.

And it would seem to the Author that the simple statement of its cause—the truth of which no one can reasonably doubt—would be sufficient to at least suggest its cure. But I am willing to state that, as a general thing, this over-indulgence would not be continued, nor would it have been allowed, had they *known* its awful consequences. I know that this was true in my own case, in all its points; this was, of course, before I had studied, or knew but little of, the power of the human system or the practice of medicine, and it was for the purpose of finding something to cure myself, that I commenced its study; for it was by years of over-indulgence at table, and between meals, in the grocery business which I was carrying on, that I brought on such a condition of the stomach that eating gave me the most intolerable suffering—a feeling almost impossible to describe; first a feeling of goneness or want of support at the stomach; heat, lassitude, and finally pain, until a thousand deaths would have been a great relief; drink was craved, and the more I drank the more intolerable

the suffering—apple cider, vinegar and water made palatable with sugar, excepted. It might be asked at this point, what did I do? I would ask, what could I do? Eat, I could not; drink, I could not. Then what else was to be done, only to do without either. What, starve? No.

TREATMENT.—Take,—no just stop taking. "Throw all medicine to the dogs,"—yes, and food also. What, starve? No, but simply get *hungry*. Who ever heard of a dyspeptic being hungry? at least, those who eat three meals a day. They eat because the victuals *taste* good—mouth hunger only.

The last year or two of my dyspeptic life, I only ate because it was eating time, and supposed I must eat or die, when I only died forty deaths by eating.

All physicians whose books I have read, and all whose prescriptions I have obtained, say: "Eat little and often; drink little and often." I say eat a little, and at the right time—that is, when hungry at the stomach; drink a little, and at the right time—that is, after digestion. And it is of just as much importance to eat and drink the right thing, as at the right time.

Persons have been so low in Dyspepsia, that even one tea-spoon of food on the stomach would not rest. In such cases let nothing be taken by mouth for several days; but inject gruel, rice water, rich broths, etc. But these cases occur very seldom.

FIRST.—Then, with ordinary cases, if there is much heat of the stomach, at bed-time, wet a towel in cold water, wringing it out that it may not drip, and lay it over the stomach, having a piece of flannel over it to prevent wetting the clothes. This will soon allay the heat, but keep it on during the night, and at any subsequent time, as may be needed.

SECOND.—In the morning, if you have been in the habit of eating about two large potatoes, two pieces of steak, two slices of bread, or from four to six hot pancakes, or two to four hot biscuits, and drinking one to three cups of tea or coffee—Hold, hold, you cry. No, let me go on. I have many times seen all these eaten, with butter, honey, or molasses, too large in amount to be mentioned, with a taste of every other thing on the table, such as cucumbers, tomatoes, etc., etc., and all by dyspeptics; but,

You will stop this morning on half of one potato, two inches square of steak, and half of one slice of cold wheat bread—or I prefer, if it will agree with you, that you use the "Yankee Brown Bread," only the same quantity; *eat very slow, chew perfectly fine, and swallow it without water, tea, or coffee;* neither must you drink any, not a drop, until one hour before meal time again, then as little as possible, so as you think not quite to choke to death.

THIRD.—The question now to be settled is, did you *suffer* from the

abundance of your breakfast, or from the *kind* of food taken? If you did take *less* next time, or change the *kind*, until you ascertain the proper quantity and kind, which enables you to overcome this exceeding suffering after meals; nay, more, which leaves you perfectly *comfortable* after meals.

LASTLY.—You now have the whole secret of curing the worst case of Dyspepsia in the world. You will, however, bear in mind that *years* have been spent in indulgence; do not, therefore, expect to cure it in *days*, nay, it will take *months*, possibly a whole *year* of self-denial, watchfulness, and care; and even then, one overloading of the stomach at a Christmas pudding will set you back again for months. Make up your mind to eat only *simple* food, and that in *small* quantities, notwithstanding an over anxious wife, or other friend, will say, now do try a little of this *nice* pie, pudding, or other dish, no matter what it may be. Oh, now, do have a cup of this nice coffee, they will often ask; but *no*, NO, must be the invariable answer, or you are again a "goner." For there is hardly any disease equally liable to relapse as Dyspepsia; and indulgence in a variety of food, or overeating any one kind, or even watery vegetables or fruit, will be almost certain to make the patient pay dear for the whistle.

Then you must eat *only* such food as you know to agree with you, and in just as *small* quantities as will keep you in health. Drink no fluids until digestion is over, or about four hours after eating, until the stomach has become a little strong, or toned up to bear it, then one cup of the "Dyspeptic Coffee," or one cup of the "Coffee Made Healthy," may be used. But more difficulty is experienced from over-drinking than overeating. Most positively must dyspeptics avoid *cold* water with their meals. If the saliva and gastric juice are diluted with an abundance of *any* fluid, they never have the same properties to aid, or carry on digestion, which they had before dilution. Then the only hope of the *dyspeptic* is to use no fluid with his food, nor until digestion has had her perfect work.

CAUTION.—I may be allowed to give a word of caution to mothers as well as all others. *One* plate of food is enough for health—two, and even three, are often eaten. Most persons have heard of the lady who did not want a "cart load," but when she got to eating, it all disappeared, and the retort, "Back up your cart and I will load it again," was just what I would have expected to hear if the load had been given to a dyspeptic, which it no doubt was. Then learn the proper amount of food necessary for health, and when that is eaten by yourself or child, stop. If pudding is on the table, and you choose to have a little of it, it is all right—have some pudding; if pie, have a piece of pie; or cake, have a piece of cake; but do not have all, and that after you have eaten twice as much meat victuals as health requires. If apples, melons, raisins, or nuts are on the table, and

you wish some of them, eat them before meal, and never after it. If surprise is manifested around you, say you eat to *live*, not live to *eat*. The reason for this is, that persons will eat all they need, and often more, of common food, then eat nuts, raisins, melons, etc., until the stomach is not only filled beyond comfort, but actually distended to its utmost capacity of endurance; being led on by the *taste*, when if the reverse course was taken, the stomach becomes satisfied when a proper amount of the more common food has been eaten, after the others.

Are you a grocer, and constantly nibbling at raisins, candy, cheese apples, and every other edible? Stop until just before meal, then eat what you like, go to your meal, and return, not touching again until meal-time, and you are safe; continue the nibbling and you do it at the sacrifice of future health. Have you children, or other young persons under you care? See that they eat only a reasonable quantity at meals and not anything between them. *Do this*, and I am willing to be called a *fool* by the younger ones, which I am sure to be· but do it not, and *the* fool will *suffer* for his folly.

You may consider me a hard doctor. Be it so then. The drunkard calls him hard names who says, give up your "cups." But as sure as he would die a drunkard, so sure will you die a dyspeptic unless you give up your *overeating* and *overdrinking* of water, tea coffee, wine, beer, ale, etc. Now you *know* the consequences, *suf* yourselves; but I have paid too dearly for my experience, not to lift a warning voice, or spare the guilty.

In recent cases, and in cases brought on by over-indulgence in some extra rich meal, you will find the "Dyspeptic Tea," made from "Thompson's Composition," will be all sufficient, as spoken of under that head, which see.

2. The wild black cherries put into Jamaica rum, are highly recommended, made very strong with the cherries, and without sugar but I should say put them into some of the domestic wines, or what would be still better, make a wine directly from them, according to the directions under the head of "Fruit Wines."

3. Old "Father Pinkney," a gentleman of ninety years of age, assures me that he has cured many bad cases of Dyspepsia, where they would give up their over-indulgences, by taking:

Blue flag root, washed clean, and free from specks and rotten streaks, then pounding it and putting into a little warm water, and straining out the milky juice, and adding sufficient pepper-sauce to make it a litte hot. DOSE.—One table-spoon 3 times a day.

It benefits by its action on the liver, and it would be good in Liver Complaints, the pepper also stimulating the stomach. See "Soot Coffee," No. 12, amongst the Ague medicines.

LARYNGITIS.—Inflammation of the Throat.—This complaint in a chronic form has become very prevalent, and is a disease which is

aggravated by every change of weather, more especially in the fall and winter months. It is considered, and that justly, a very hard disease to cure, but with caution, time, and a rational course of treatment, it can be cured.

The difficulty with most persons is, they think that it is an uncommon disease, and consequently they must obtain some uncommon preparation to cure it; instead of which, some of the more simple remedies, as follows, will cure nearly every case, if persevered in a sufficient length of time. First, then, take the:

Alterative for Diseases of the Skin.—Compound tincture of Peruvian bark, 6 ozs.; fluid extract of sarsaparilla, 1 lb.; extract of conium, ½ oz.; iodate of potash, (often called hydriodate), ½ oz.; iodine, ½ dr.; dissolve the extract of conium and the powders in a little of the fluid, and mix all. DOSE.—Two tea-spoons three times daily, before meals, until all is taken. Shake the bottle well before using.

In the next place, take the:

2. Gargle for Sore Throat.—Very strong sage tea, ½ pt.; strained honey, common salt, and strong vinegar, of each 2 table spoons; cayenne, the pulverized, one rounding tea-spoon; steeping the cayenne with the sage, strain, mix, and bottle for use, gargling from 4 to a dozen times daily according to the severity of the case.

This is one of the very best gargles in use. By persevering some three months, I cured a case of two years' standing, where the mouths of the Eustachian tubes constantly discharged matter at their openings through the tonsils into the patient's mouth, he having previously been quite deaf, the whole throat being also diseased. I used the preparation for "Deafness" also, as mentioned under that head.

Remembering always to breathe through nature's channel for the breath, the nose.

Besides the foregoing, you will wash the whole surface twice a week with plenty of the "Toilet Soap," in water, wiping dry, then with a coarse dry towel rub the whole surface for ten minutes at least, and accomplish the coarse towel part of it every night and morning until the skin will remain through the day with its flushed surface and genial heat. This draws the blood from the throat and other internal organs, or in other words, equalizes the circulation. Know, and act upon this fact, and no inflammation can long exist, no matter where it is located. Blood accumulates in the part inflamed, but let it flow evenly through the whole system, and of course there can be no inflammation.

You will also apply to the throat and breast the following:

3. Sore Throat Liniment.—Gum camphor, 2 ozs.; castile soap shaved fine, 1 dr.; oil of turpentine, 1 table-spoon; oil of origanum,

½ oz.; opium, ¼ oz.; alcohol, 1 pt. In a week or ten days it will be fit for use, then bathe the parts freely 2 or 3 times daily.

This liniment would be found useful in almost any throat or other disease where an outward application might be needed. If the foregoing treatment should fail, there is no alternative but to bring in *emetics* with the other treatment, and continue them for *a long time.*

I mention the emetic plan last, from the fact that so many people utterly object to the emetic treatment. But when everything else fails, that steps in and *saves* the patient, which goes to show how *unjust* the prejudice. By the phrase, a long time, I mean several weeks, twice daily at first, then once a day, and finally thrice to twice a week, etc. A part of this course, you will see by the following, is corroborated by the celebrated Lung and Throat Doctor, S. S. Fitch, of New York, who says "it is a skin disease, and that purifying medicines are necessary to cleanse the blood—taking long, full breaths," etc. This is certainly good sense. His treatment of throat diseases is summed up in the following:.

NOTE.—"Wear but little clothing around the neck—chew often a little nut-gall and swallow the juice—wear a wet cloth about the throat at night, having a dry towel over it—bathe freely all over, as in consumption, and especially bathe the throat with cold water every morning, also wash out the inside of the throat with cold water—avoid crowded rooms—gargle with a very weak solution of nitrate of silver—chewing gold-thread and swallowing the juice and saliva from it—borax and honey occasionally, and gum arabic water, if much irritation—use the voice as little as possible until well, also often using a liniment externally."

I had hoped for very much benefit from using croton-oil externally, but time has shown that the advantage derived from it is not sufficient to remunerate for the excessive irritation caused by its continued application.

4. Smoking dried mullein leaves in a pipe not having been used for tobacco, is said to have cured many cases of Laryngitis. And I find in my last *Eclectic Medical Journal* so strong a corroboration, taken from the *Medical and Surgical Reporter*, of this fact, that I cannot refrain from giving the quotation. It says: "in that form of disease in which there is dryness of the trachea, *with a constant desire to clear the throat*, attended with little expectoration, and considerable pain in the part effected, the mullein smoked through a pipe acts like a charm and affords instant relief. It seems to act as an anodyne in allaying irritation, while it promotes expectoration, and removes that gelatinous mucus which gathers in the larynx, and, at the same time, by some *unknown power*, completely changes the nature of the disease, and, if persevered in, will produce a radical cure."

We read in a certain place of a gentleman who was walking

around and through a great city, and he came across an inscription "To the *unknown* God,"—and directly we find him explaining that unknown Being to the astonished inhabitants. And I always feel, like this old-fashioned gentleman, to cry out, upon every convenient occasion, my belief, that it was *that* God's *great* wisdom, seeing what was required, and His *exceeding* goodness, providing according to our necessities, this wonderful, and, to some, that *unknown* power in the thousands of plants around us. What matters it to us how it is done? If the cure is performed, it is sufficient.

Since the publication of the foregoing, in the ninth edition, I have been smoking the dried mullein, and recommending it to others. It has given general satisfaction for coughs and as a substitute for tobacco in smoking, exhilarating the nerves, and allaying the hacking coughs from recent colds, by breathing the smoke into the lungs. In one instance, after retiring, I could not rest from an irritation in the upper portion of the lungs and throat, frequently hacking without relief only for a moment. I arose, filled my pipe with mullein, returning to bed, I smoked the pipeful, drawing it into the lungs, and did not cough again during the night.

An old gentleman, an inveterate smoker, from my suggestion began to mix the mullein with his tobacco, one-fourth at first, for a while, then half, and finally three-fourths; at this point he rested. It satisfied in place of the full amount of tobacco, and cured a cough which had been left upon him after inflammation of the lungs. The flavor can hardly be distinguished from the flavor of tobacco smoke, in rooms.

It can be gathered any time during the season, the centre stem removed, carefully dried, and rubbed fine, when it is ready for use. It gives a pipe the phthisic, as fast as it cures one on the patient; but the clay pipe, which is to be used, can be readily cleansed by burning out.

Here is the "Substitute for Tobacco" for which the French have offered 50,000 francs.

It can be made into cigars by using a tobacco-leaf wrapper.

Catarrh is often more or less connected with that disease. In such cases, in connection with the above treatment, take several times daily of the following:

Catarrh Snuff.—Scotch snuff, 1 oz.; chloride of lime, dried and pulverized, 1 rounding tea-spoon; mix, and bottle, corking tightly.

The snuff has a tendency to aid the secretion from the parts; and the chloride corrects unpleasant fetor.

CANCERS.—To Cure.—Method of Dr. Landolfi, (Surgeon-General of the Neapolitan Army,) and several Successful American Methods.—The principle upon which the treatment is based, consists

in transforming a tumor of malignant character, by conferring upon it a character of benignity, which admits of cure. This transformation is effected by cauterization with an agent looked upon as specific, viz., chloride of bromine, combined or not with other substances, which have been tried, but have hitherto been employed separately. The internal treatment is merely auxiliary. (Cancers may be known from other tumors by their shooting or lancinating pains; and if an open sore, from their great fetor.—AUTHOR.) The formulas for the caustics are with the exception of a few cases, the following:

Equal parts of the chlorides of zinc, gold, and antimony, mixed with a sufficient quantity of flour to form a viscid paste.

At Vienna, he used a mixture of the same substances in different proportions; chloride of bromine, 3 parts; chloride of zinc, 2 parts; chloride of gold and antimony, each 1 part; made into a thick paste with powdered licorice root. This preparation should be made in an open place, on account of the gases which are disengaged.

The essential element is the chloride of bromine, which has often been employed alone; thus, chloride of bromine from 2½ to 4 drs. and put licorice root as much as sufficient.

The chloride of zinc is indispensable in ulcerated cancers, in which it acts as a hemastatic, (stopping blood). The chloride of gold is only useful in cases of encephaloid (brain-like) cancers, in which it exercises a special, if not a specific action. Cancers of the skin (epithelliomas,) lupus, and small cystosarcomas, (watery or bloody tumors,) are treated with bromine mixed with basilicon ointment in the proportion of one part of bromine to eight of the ointment. The application should not extend to the healthy parts, its action being often propogated through a space of one or two lines. The paste is only allowed to remain on about twenty-four hours. On removing the dressing, a line of demarkation is almost always found separating the healthy from the morbid parts. The tumor is itself in part whitish and part reddish, or marbled with yellow and blue. The caustic is replaced with the poultice, or with compresses smeared with basilicon ointment only, which are to be removed every three hours until the scar is detached; the pain progressively diminishing in proportion as the mortification advances, the line of demarkation daily becomes more evident; about the fourth or fifth day the cauterized portion begins to rise, and from the eighth to the fifteenth day it becomes detached, or can be removed with forceps, and without pain, exposing a suppurating surface, secreting pus of a good quality and covered with healthy granulations. If any points remain of less satisfactory appearance, or present traces of morbid growth, a little of the paste is to be again applied, then dress the sore as you would a simple ulcer. If the suppuration proceeds too slowly, dress it with lint dipped in the following solution:

chloride of bromine, 20 or 30 drops; Goulard's Extract, from 1 to 2 drs; distilled water, 16 ozs.

In the majority of cases healing takes place rapidly, cicatrization progresses from the circumference to the center, no complications supervene, and the cicatrix (scar), resembles that left by a cutting instrument. His internal remedy, to prevent a relapse, is:

Chloride of bromine, 2 drops; powder of the seeds of water fenel, 25 grs.; extract of hemlock, (Conium Maculatum,) 12 grs.; mix and divide into 20 pills; one to be taken daily for two months, and after that, two pills daily for a month or two longer, one night and morning after meals.

In any case of Cancer, either the foregoing, internal remedy, or some of the other Alteratives, should be taken two or three weeks before the treatment is commenced, and should also be continued several weeks after its cure.

2. Dr. H. G. Judkins' Method.—This gentleman, of Malaga, Monroe county, Ohio, takes:

Chloride of zinc, the size of a hazel-nut, and puts enough water with it to make a thin paste, then mixes with it equal parts of flour, and finely pulverized charcoal, sufficient to form a tolerable stiff paste.

He spreads this on a soft piece of sheep skin, sufficiently large to cover the tumor, and applies every two days until it is detached, then dresses it with "Judkins' Ointment," which see. Again—

3. L. S. Hodgkins' Method.—This gentleman is a merchant, of Reading, Mich. The method is not original with him, but he cured his wife with it, of cancer of the breast, after having been pronounced incurable. Some would use it because it contains calomel—others would not use it for the same reason; I gave it an insertion from the fact that I am well satisfied that it has cured the disease, and from the singularity of its composition.

Take a white oak root and bore out the heart and burn the chips to get the ashes, ¼ oz.; lunar caustic, ¼ oz.; calomel, ¼ oz.; salts of nitre, (saltpetre) ¼ oz.; the body of a thousand-legged worm, dried and pulverized, all to be made fine and mixed with ¼ lb. of lard.

Spread this rather thin upon soft leather, and apply to the cancer, changing twice a day; will kill the tumor in three or four days, which you will know by the general appearance; then apply a poultice of soaked figs until it comes out, fibres and all; heal with a plaster made by boiling red beech leaves in water, straining and boiling thick, then mix with bees-wax and mutton tallow to form a salve of proper consistency. To cleanse the system while the above is being used, and for some time after:

Take mandrake root, pulverized, 1 oz.; Epsom salts, 1 oz.; put into pure gin, 1 pt., and take of this three times daily, from one tea

to a table-spoon, as you can bear. He knew of several other cures from the same plan.

4. The juice of pokeberries, set in the sun, upon a pewter dish, and dried to the consistence of a salve, and applied as a plaster, has cured cancer.

5. Poultices of scraped carrots, and of yellow dock root, have both cured, and the scraped carrot poultices, especially not only cleanse the sore, but remove the very offensive smell or fetor, which is *characteristic* of cancers.

6. A gentleman in Ohio cures them by making a tea of the yellow dock root, and drinking of it freely, washing the sore with the same several times daily for several days, then poulticing with the root, mashed and applied twice daily, even on the tongue.

7. Rev. C. C. Cuyler, of Poughkeepsie, N. Y., says he has known several cases cured as follows:

Take the narrow-leaved dock root and boil it in soft water until very strong, wash the ulcer with this strong decoction 3 times in the 24 hours, fill the cavity also with the same 2 minutes, each time, then bruise the root, and lay it on gauze, and lay the gauze next to the ulcer, and wet linen cloths in the decoction and lay over the poultice; and each time let the patient drink a wine-glass of the strong tea of the same root, with ½ of a glass of port-wine sweetened with honey.

8. Dr. Buchan's work on Medicine, gives the case of a person, who had cancer of the tongue, cured in fourteen days, as follows:

Dilute nitric acid, 1 oz.; honey, 2 ozs.; pure water, 2 pts.; mix. DOSE.—Three table-spoons frequently, to be sucked past the teeth, through a quill or tube.

Opium was given at night, simply to keep down pain.

9. Great English Remedy—By which a brother of Lowell Mason was cured, is as follows:

Take chloride of zinc, bloodroot, pulverized, and flour, equal quantities of each, worked into a paste and applied until the mass comes out, then poultice and treat as a simple sore.

The *Rural New Yorker*, in reporting this case, says, in applying it, "First spread a common sticking-plaster *much* larger than the cancer, cutting a circular piece from the center of it a *little* larger than the cancer, applying it, which exposes a narrow rim of healthy skin; then apply the cancer plaster and keep it on twenty-four hours. On removing it, the cancer will be found to be burned into, and appears the color of an old shoe-sole, and the rim outside will appear white and parboiled, as if burned by steam.

"Dress with slippery elm poultice until suppuration takes place, then heal with any common salve."

10. Armenian Method.—In Armenia, a salve, made by boiling

olive oil to a proper consistence for the use, is reported by an eastern traveler to have cured very bad cases.

11. Figs boiled in new milk until tender, then split and applied hot—changing twice daily, washing the parts every change, with some of the milk—drinking 1 gill of the milk also as often.

And continuing from three to four months, is also reported to have cured a man ninety-nine years old by using only six pounds, whilst ten pounds cured a case of ten years' standing. The first application giving pain, but afterwards relief, every application.

12. Red Oak Bark.—A salve from the ashes, has long been credited for curing cancer, and as I have recently seen the method given for preparing and using it, by Isaac Dillon, of Oregon, published in a paper near him, I cannot keep the benefit of it from the public. The directions were sent to him by his father, John Dillon, Sen., of Zanesville, O., and, from my knowledge of the Dillon family, I have the utmost confidence in the prescription. It is as follows:

Take red oak bark ashes, 1 peck; put on to them, boiling water, 4 qts.; let it stand 12 hours; then draw off the ley and boil to a thick salve; spread this, pretty thick, upon a thick cloth a little larger than the cancer, and let it remain on 3 hours; if it is too severe, half of that time; the same day, or the next, apply again 3 hours, which will generally effect a cure; after the last plaster, wash the sore with warm milk and water; then apply a healing salve made of mutton tallow, bark of elder, with a little resin and bees-wax, (some root of white lily may be added;) stewed over a slow fire; when the sore begins to matterate, wash it 3 or 4 times daily, renewing the salve each time: avoid strong diet, and strong drink, but drink a tea of sassafras root and spice-wood tops, for a week before and after the plaster.

13. Prof. R. S. Newton, of Cincinnati, uses the chloride of zinc, a saturated solution, (as strong as can be made,) or makes the chloride into a paste, with thick gum solution.

In cases of large tumors he often removes the bulk of them with a knife, then applies the solution, or paste, as he thinks best, to destroy any remaining roots which have been severed by the knife.

14. Prof. Calkins, of Philadelphia, prefers a paste made from yellow dock, red clover, and poke, using the leaves only, of either article, in equal quantities.

Boiling, straining, and simmering to a paste, applying from time to time, to cancerous growths or tumors, until the entire mass is destroyed, then poultice and heal as usual.

But Dr. Beach, of N. Y., who is a man of much experience in cancers, says beware of the knife, or any plaster which *destroys* the cancer or tumor; but first use discutients, (medicines which have a tendency to drive away swellings,) unless already ulcerated, then, mild

poultices to keep up a discharge from the ulcer, with alteratives, long continued, keeping the bowels regular, etc., etc. The Vienna physicians, as well as Dr. Beach, allow the inhalation of a few drops of chloroform where the pain is excruciating. And I would say, apply a little externally, also around the sore.

Cancers should not be disturbed as long as they do not grow nor ulcerate, but as soon as *either* begins, then is the time to *begin* with them.

COSTIVENESS.—To Cure.—Costive habits are often brought on by neglecting to go to stool at the usual time, for most persons have a regular daily passage, and the most usual time is at rising in the morning, or immediately after breakfast; but hurry, or negligence, for the want of an understanding of the evil arising from putting it off, these calls of nature are suppressed; but let it be understood, *nature*, like a good workman or student, has a time for each duty; then not only let her work at her own time, but if tardy go at this time and not only aid but solicit her call, or in other words:

When nature *calls*, at *either* door,
Do not attempt to bluff her;
But *haste away*, night or day,
Or, *health* is sure to suffer.

The above, with attention to diet, using milk, roasted apples, and if not dyspeptic, uncooked apples, pears, peaches, etc., at meal time "Yankee Brown Bread," or bread made of unbolted wheat, if preferred, and avoiding a meat diet, will in most cases soon remedy the difficulty. However:

2. In Very Obstinate Cases.—Take extract of henbane, ½ dr., extract of colocynth, ⅓ dr.; extract of nux vomica, 3 grs.; carefully work into pill mass, and form into 15 pills. Dose.—One pill night and morning.

Continue their use until the difficulty is overcome, at the same time, following the previous directions, faithfully. With many persons, the following will be found all sufficient:

3. Brandy, ½ pt.; and put into it rhubarb root, bruised, 1 dr., hierapicra, 1 oz.; and fennel seed, ½ oz.

After it has stood for several days, take a table-spoon of it three times daily, before eating, until it operates, then half the quantity, or a little less, just sufficient to establish a daily action of the bowels, until all is taken. Or, the second pill under the head of "Eclectic Liver Pill," may be taken as an alterative to bring about the action of the liver, which is, of course, more or less inactive in most cases of long continued costiveness.

4. Corn meal, 1 table-spoon stirred up in sufficient cold water to drink well, and drank in the morning, immediately after rising, has, with perseverance, cured many bad cases.

5. A fresh egg beat in a gill of water and drank on rising in the

morning, and at each meal, for a week or ten days, has cured obstinate cases. It might be increased to two or three at a time as the stomach will bear.

CHRONIC GOUT.—To Cure.—"Take hot vinegar, and put into it all the table salt which it will dissolve, and bathe the parts affected with a soft piece of flannel. Rub in with the hand, and dry the foot, etc., by the fire. Repeat this operation four times in the 24 hours, 15 minutes each time, for four days; then twice a day for the same period; then once, and follow this rule whenever the symptoms show themselves at any future time."

The philosophy of the above formula is as follows: Chronic gout proceeds from the obstruction of the free circulation of the blood (in the parts affected) by the deposit of a chalky substance, which is generally understood to be a carbonate and phosphate of lime. Vinegar and salt dissolve these; and the old chronic compound is broken up. The carbonate of lime, etc., become acetate and muriate, and these being soluble, are taken up by the circulating system, and discharged by secretion. This fact will be seen by the gouty joints becoming less in bulk until they assume their natural size. During this process, the stomach and bowels should be occasionally regulated by a gentle purgative. Abstinence from spiritous libations; exercise in the open air, and especially in the morning; freely bathing the whole surface; eating only the plainest food, and occupying the time by study, or useful employment, are very desirable assistants.

2. Gout Tincture.—Veratrum viride, (swamp hellebore,) ½ oz.; opium, ¼ oz.; wine, ½ pt.; let them stand for several days. DOSE.—15 to 30 drops, according to the robustness of the patient, at intervals of two to four hours.

M. Husson, a French officer, introduced this remedy in gout some sixty years ago, and it became so celebrated that it sold as high as from one to two crowns a dose. It is considered valuable also in acute rheumatism. In gout it removes the paroxysms, allays pain, and procures rest and sleep, reduces the pulse and abates fever.

3. Coffee has recently been recommended, not only for gout, but gravel also. Mr. Mosley observes, in his "Treatise on Coffee," that the great use of the article in France is supposed to have abated the prevalence of the gravel. In the French colonies, where coffee is more used than in the English, as well as in Turkey, where it is the principal beverage, not only the gravel but the gout is scarcely known. Dr. Faur relates, as an extraordinary instance of the effect of coffee on gout, the case of Dr. Deveran, who was attacked with gout at the age of twenty-five, and had it severely till he was upwards of fifty, with chalk stones in the joints of his hands and feet; but for four years preceeding the time when the account of his case had been given to

Dr. Faur to lay before the public, he had, by advice, used coffee, and had no return of the gout afterward.

PARALYSIS.—If Recent.—To Cure.—When paralysis, (numb palsy,) has existed for a great length of time, but little benefit can be expected from any treatment; but if recent, very much good, if not a perfect cure will be the result of faithfully governing yourself by the following directions with this:

Paralytic Liniment.—Sulphuric ether, 6 ozs.; alcohol, 2 ozs.; laudanum, 1 oz.; oil of lavender, 1 oz.; mix and cork tightly. In a recent case of paralysis let the whole extent of the numb surface be thoroughly bathed and rubbed with this preparation, for several minutes, using the hand, at least 3 times daily, at the same time take internally, 20 drops of the same, in a little sweetened water, to prevent translation upon some internal organ.

It may be used in old cases, and, in many of them, will undoubtedly do much good; but I do not not like to promise what there is no reasonable chance to perform. It is well in very recent cases to keep the parts covered with flannels, with a large amount of friction by the hand; also, electricity scientifically applied, that is by a Physician or some one who has studied the nature and operations of the electrical machine.

This liniment should be applied so freely, that about an ounce a day will be consumed, on an arm or leg, and if a whole side is palsied proportionally more. In cases of pains in the stomach or side a teaspoon will be taken with unusual success; or for pain in the head, apply to the surface, always bearing in mind that some should be taken internally whenever an external application is made. In sprains and bruises where the surface is not broken it will be found very efficacious. It may be successfully rubbed over the seat of any internal disease accompanied with pain.

ENLARGED TONSILS.—To Cure.—Where the tonsils are enlarged from colds, or epidemic sore throat,

Take No. six, 1 oz.; molasses, 2 ozs.; and hot water, 4 ozs.; mix and sip a little into the throat often, swallowing a little also; it keeps up a discharge of saliva from those parts and thus relieves their swollen condition; and stimulates to renewed healthy action.

It has proved very efficacious in the above epidemic cases, which leave the tonsils much indurated (hardened), as well as swollen, with a tendency to chronic inflammation of the whole larynx, or throat, often with little ulcers. In that case:

Put 10 grs. of nitrate of silver to 1 oz. of water, with 3 or 4 drops of creosote, and swab the throat with it, and lay a flannel wet with turpentine upon the outside.

The worst cases will shortly yield to this mild treatment. Should there, however, be a disposition to fever, you might also put the feet

into hot water fifteen or twenty minutes, with occasional sponging the whole surface.

SICK HEAD-ACHE.—To Cure.—Sick head-ache, proper, arises from acidity, or over-loading the stomach; when it is not from over eating, all that is necessary, is to soak the feet in hot water about twenty minutes, drinking at the same time some of the herb-teas, such as pennyroyal, catnip, or mint, etc., then get into bed, cover up warm and keep up a sweating process for about an hour, by which time relief will have been obtained; but when food has been taken which remains in the stomach, it is much the best way to take an emetic, and the following is the:

2. Eclectic Emetic.—Which is composed of lobelia, and ipecacuanha, equal parts, and bloodroot half as much as of either of the others, each pulverized separately, and mix thoroughly. Dose.—Half a common tea-spoon every 15 or 20 minutes in some of the warm teas, for instance, camomile flowers, pennyroyal, or boneset—drinking freely between doses of the same tea in which you take it; continue until you get a free and full evacuation of the contents of the stomach.

After the operation, and when the stomach becomes a little settled, some nourishment will be desired, when any of the mild broths, or gruel, should be taken, in small quantities, without fear of increasing the difficulty.

"There is, probably, no emetic surpassing this, either in efficacy of action, or efficiency in breaking up morbid, unhealthy conditions of the system generally, and exciting healthy action. It is excellent in croup, chronic affections of the liver or stomach etc., and in fact, when and wherever an emetic is needed."—*Beach.*

But after a full trial of both, upon my own person and others, I prefer lobelia seed alone, pulverized, when used. The manner of administering them has been the cause of bringing the lobelia emetic into disrepute. I take "Thompson's Composition" tea, made as there directed and drink two saucers of it, fifteen minutes apart, and with the third I stir in one rounding tea-spoon of lobelia seed, pulverized, and drink it; then every fifteen minutes I take another saucer of the tea until free vomiting takes place, not taking any more of the lobelia; by this course I think it more efficient and thorough than the mixed emetic, and entirely free from danger of the "alarming symptoms," as they are called, brought on by continuing to give the lobelia every few minutes instead of waiting its action, and all for want of knowledge as to what that action should be; but if you give it its own time, continuing the stimulating tea, it will have its *specific* action, which is to vomit, no matter at which end it is introduced. When it begins to vomit it will generally continue its action until it empties the stomach, then I begin to substitute the composition with:

3. Bread Tea, Used in Taking Emetics.—Made by taking a piece

of dry bread and crumbing it into a bowl, with a little salt, pepper, and butter, to suit the taste, then pouring boiling water upon it: this soon allays the retching, and strengthens the stomach to renewed healthy action.

Periodical Headache.—There are those who have sick headache coming on at periods of from a few weeks to two or three months, lasting two or three days, accompanied with nausea, and occasionally with vomiting. In these cases after using the emetic to relieve the present attack, take the Cathartic Syrup next following:

4. Cathartic Syrup.—Best senna leaf, 1 oz.; jalap, ½ oz., butternut, the inner bark of the root, dried and bruised, 2 ozs.; peppermint leaf, ½ oz.; fennel seed, ½ oz.; alcohol, ½ pt.; water, 1½ pts.; sugar, 2 lbs.; put all into the spirit and water, except the sugar, and let it stand 2 weeks, then strain, pressing out from the dregs, adding the sugar and simmering a few minutes only, to form the syrup. If it should cause griping in any case, increase the fennel seed and peppermint leaf. DOSE.—One table-spoon, once a day, or less often if the bowels become too loose up to the next period when the headache might have been expected, and it will not be forthcoming.

This is a mild purgative, and especially pleasant. Most persons, after a trial of it, will adopt it for their general cathartic, and especially for children. Increase or lessen the dose, according to the effect desired.

Females in a weak and debilitated condition, often have a headache which is purely sympathetic; this they will distinguish by their general weakness, irregularities, and light-headedness, often amounting to real pain; in such cases take the following:

5. Headache Drops.—Castor, gentian, and valerian roots, bruised, ¼ oz.; laudanum, 1 oz.; sulphuric ether, 1½ ozs.; alcohol, ½ pt.; water, ½ pt.; put all into a bottle and let stand about 10 days. DOSE.—A tea-spoon as often as required, or 2 or 3 times daily.

6. Tincture of Blood-Root.—Made by putting 1 oz. of the dried, bruised root, to 1 pt. of gin, and taking 1 tea-spoon, before eating, every morning, and only eating a reasonable amount of easily digested food.

Has worked wonders in cases where headache has been of very long standing. And it might not be amiss to say that the majority of headaches are found amongst those who are disposed to Dyspepsia, by long continued over-eating, then reducing the gastric juice by over-drinking, even of water, tea or coffee.

A Niles paper gives one which is easily tried. It is as follows:

7. "Charcoal, a Cure for Sick Headache.—It is stated that two table-spoons of finely powdered charcoal, drank in half a tumbler of water, will, in less than 15 minutes, give relief to the sick headache, when caused, as in most cases it is, by superabundance of acid on the

stomach. We have tried this remedy time and again, and its efficacy in every instance has been signally satisfactory."

When headache has been brought on by eating too freely of boiled beef, cabbage, etc., or any other indigestible dinner, one cup of "good tea," at tea time, eating only a slice of dry bread, will often allay the nervousness, quiet the head, and aid in getting to sleep. The "Good-Samaritan" applied to the head is also good.

DELIRIUM TREMENS.—To Obtain Sleep.—Give an emetic of ipecacuanha, then give 15 to 18 grs. of the same, every 2 hours, using the shower bath, and giving all the beef tea the patient desires.

The jail Physician of Chicago reports thirty-six favorable cases treated as above. In Boston, at the "House of Correction," the danger arising from the sudden loss of their accustomed stimulus, according to Puritanic economy, is overcome by administering, freely, a strong decoction of wormwood.

2. Stimulating Anodyne.—Sulphate of quinine, 12 grs.; sulphate of morphine, 1 gr.; mix, and divide into 6 powders. **Dose.**—One powder every hour.

Prof. King, of Cincinnati, O., says that from two to four powders of the above anodyne, will nearly every time produce sleep in this whisky delirium.

TYPHUS FEVER.—To Prevent Infection.—Take nitre, (saltpetre) pulverized, ¾ oz.; oil of vitriol, ¾ oz.; put the nitre into a tea-cup and set it on a red hot shovel, adding the vitriol one-sixth at a time, stirring it with a pipe stem; avoiding the fumes as they rise from the cup; no danger, however, in breathing the air of the room.

The above amount is sufficient for a room twelve by sixteen feet, and less or more according to the size of other rooms. Dr. J. C. Smith, of London, is said to have received from Parliament £5000 for making this recipe public.

2. To purify the air from noxious effluvia in sick rooms, not of a contagious character, simply slice three or four onions, place them upon a plate upon the floor, changing them three or four times in the twenty four hours.

3. Disinfectant, for Rooms, Meat, and Fish.—Common salt, ½ a tea-cup; sulphuric acid, 2 or 3 ozs.; put about ½ oz. of the acid upon the salt at a time, every 15 minutes, stirring, until all is put on.

Which will purify a large room; and for meat or fish, hang them up in a box, having a cover to it, and thus confine the gas, and tainted articles of food will soon be purified, by the same operation. And notwithstanding so much was paid for the "Smith Disinfectant," the above will be found equally good.

4. Coffee, dried and pulverized, then a little of it sprinkled upon a hot shovel, will, in a few minutes, clear a room of all impure effluvia, and especially of an animal character.

5. Chloride of Lime.—Half a saucer of it, moistened with an equal mixture of good vinegar and water, a few drops at a time only, will purify a sick-room in a few minutes.

SWEATING PREPARATIONS.—Sweating Drops.—Ipecacuanha, saffron, Virginia snakeroot, and camphor gum, each 2 ozs.; opium, ½ oz.; alcohol, 2 qts. Let stand 2 weeks, shaking occasionally. **Dose.**—A tea-spoon in a cup of hot pennyroyal, spearmint, or catnip tea, every half hour, until perspiration is induced; then once an hour, for a few hours.

It is excellent in colds, fevers, pleurisy, inflammation of the lungs, etc. It is good to soak the feet in hot water at the same time.

2. Sweating with Burning Alcohol.—Pour alcohol into a saucer, to about half fill it; place this under a chair; strip the person to be sweated, of all clothing, and place him in the chair, putting a comforter over him, also; now light a match and throw it into the saucer of alcohol, which sets it on fire, and by the time the alcohol is burned out he will be in a profuse perspiration, if not, put in half as much more of alcohol and fire it again, which will accomplish the object, then rise up and draw the comforter around you, and get into bed, following up with hot teas and sweating drops, as in the first above.

This last plan of sweating is also good in recent colds, pleurisy inflammation of the lungs, and all other inflammatory diseases, either in recent attacks, or of long standing complaints. See the closing remarks after the treatment of "Pleurisy," also "Ginger Wine."

IMPERIAL DROPS.—For Gravel and Kidney Complaints.—Take saltpetre, 1 oz.; putting it into an iron mortar, dropping in a live coal with it, which sets it on fire; stir it around until it all melts down into the solid form, blow out the coals, and pulverize it; then take an equal amount of bicarbonate of potassia, or saleratus, and dissolve both in soft water, 2 ozs. **Dose.**—From 20 to 30 drops, morning and evening, in a swallow of tea made from flaxseed, or a solution of gum arabic.

In connection with the drops, let the patient take from a table-spoon to two or three table-spoons of onion juice—that is, all the stomach will bear—eating all the raw onions he can, and continue it until free of the complaint. I have seen gravel the size of a common quill, crooked, and one and one-fourth inches in length, which a lady passed from the bladder, and smaller bits almost innumerable, by the simple use of onion juice alone.

The onion juice, (red onions are said to be the best,) has, and may be injected through a catheter into the bladder, have no fears to do this, for I know a physician of forty years' practice who has done it five times with success—a physician, however, would have to be called to introduce the catheter.

2. In what is termed "Fits of the gravel," that is where small

gravel has become packed in the ureter, (tube which leads from the kidney to the bladder,) causing excruciating pain in that region, a pill of opium must be given, varying in size from one to three grains, according to the pain, strength, and age of the patient.

3. A strong decoction made by using a large handful of smartweed, adding a gill of gin, and a gill each of horse-mint and onion juices, and taking all in 12 hours, has been known to discharge gravel in large quantities.—*Philadelphia Eclectic Journal.*

The surest sign of gravel is the dark appearance of the urine, as if mixed with coffee grounds, and a dull pain in the region of the kidney—if only inflammation, the darkness will not appear. See the closing remarks upon "Gout."

CAMPHOR ICE.—For Chapped Hands or Lips.—Spermaceti tallow, 1½ ozs.; oil of sweet almonds, 4 tea-spoons; gum camphor, ¾ oz.; made fine. Set on the stove until dissolved, constantly stirring. Use only just sufficient heat to melt them.

Whilst warm, pour into moulds if desired to sell, then paper and put up in tin-foil. If for your own use, put up in a tight box. Apply to the chaps or cracks two or three times daily, especially at bed time.

BURNS.—Salve for Burns, Frost-Bites, Cracked Nipples, etc.—Equal parts of turpentine, sweet oil, and bees-wax; melt the oil and wax together, and when a little cool, add the turpentine, and stir until cold, which keeps them evenly mixed.

Apply by spreading upon thin cloth—linen is the best. I used this salve upon one of my own children, only a year and a half old, which had pulled a cup of hot coffee upon itself, beginning on the eyelid and extending down the face, neck and breast, also over the shoulder, and in two places across the arm, the skin coming off with the clothes; in fifteen minutes from the application of the salve, the child was asleep, and it never cried again from the burn, and not a particle of scar left.

It is good for chaps on hands or lips, or for any other sore. If put on burns before blistering has taken place, they will not blister. And if applied to sore or cracked *nipples* every time after the child nurses, it soon cures them also. For nipples, simply rubbing it on is sufficient. I find it valuable also for pimples, and common healing purposes; and I almost regret to add any other preparations for the same purposes, for fear that some will neglect this; but as there may be cases where some of the following can be made when the above cannot, I give a few others known to be valuable. The first one is from Dr. Downer, of Dixboro, within six miles of our city; he used it in a case where a boy fell backwards into a tub of hot water, scalding the whole buttock, thighs, and privates, making a bad scald in a bad place, but he succeeded in bringing him successfully through, and from its containing opium, it might be preferable to the first in deep and very extensive

burns, but in that case the opium might be added to the first. It is as follows:

2. Dr. Downer's Salve for Burns.—Bees-wax, 4 ozs.; opium, ¼ oz.; sugar of lead, 1 oz.; melt the bees-wax, and rub the lead up in the wax, then the opium; and finally add about a gill of sweet oil, or sufficient to make a salve of proper consistence.

Spread lightly on cloth—no pain, he says, will be felt under its use He highly recommends it for the pain and inflammation of Piles, also:

3. Poultice for Burns and Frozen Flesh.—A. Bronson, of Meadville, Pa., says, from 15 years' experience, that Indian meal poultices covered with young hyson tea, moistened with hot water, and laid over burns or frozen parts, as hot as can be borne, will relieve the pain in 5 minutes, and that blisters, if they have not will not arise, and that one poultice is usually sufficient.

4. Salve for Burns.—Bees-wax, Burgundy pitch, white pine pitch, and resin, of each, ¼ lb.; mutton tallow, ½ lb.; goose oil, 1 gill; tar, ½ gill; mixed and melted together, and used as other salves.

This was used successfully on a very bad case, burned all over the face, neck, breast, bowels, etc., soothing and quieting pain, giving rest and sleep directly.

5. Garden and Kitchen Salve for Burns and Frost Bites.—Live-forever and sweet clover leaves, camomile and sweet elder, the inner bark, a handful of each; simmer them in fresh butter and mutton tallow, of each, ¼ lb.; when crisped, strain out and add 2 or 3 ozs. of bees-wax to form a salve. Spread very thin on thin cloth.

Mrs. Miller, of Macon, Mich., cured a bad case with this, burned by the clothes taking fire, nearly destroying the whole surface. She speaks of it in equal praise for cuts and frost-bites. See the "Green Ointment also for Chilblains."

6. The white of an egg beat up, then beat for a long time with a table-spoon of lard, until a little water separates from them, I have found good for burns.

7. The white oxide of bismuth, rubbed up in a little lard, is also a good application in burns.

8. Glycerine and tannin, equal weights, rubbed together into an ointment, is very highly recommended for sore or cracked nipples. See "Dr. Raymond's statement in connection with the treatment of Piles."

ITCHING FEET FROM FROST-BITES.—To Cure. — Take hydrochloric acid, 1 oz.; rain water, 7 ozs.; wash the feet with it 2 or 3 times daily, or wet the socks with the preparation, until relieved.

A gentleman whose feet had been frozen, in the Alps, eight years before, and another man's had been frozen two years before, on the Sierra Nevada Mountains, were effectually cured by its use.

CHILBLAINS.—To Cure.—Published by Order of the Government of Wirtemburg.—Mutton tallow and lard of each ¾ lb.; melt in an iron vessel and add hydrated oxyde of iron, 2 ozs.; stirring continually with an iron spoon, until the mass is of an uniform black color; then let it cool and add Venice turpentine, 2 ozs.; and Armenian bole, 1 oz.; oil of bergamot, 1 dr.; rub up the bole with a little olive oil before putting it in.

Apply several times daily by putting it upon lint or linen—heals the worst cases in a few days.

Chilblains arise from a severe cold to the part, causing inflammation, often ulcerating, making deep, and very troublesome, and long-continued sores.

FELONS.—If Recent, to Cure in Six Hours.—Venice turpentine, 1 oz., and put into it half a tea-spoon of water, and stir with a rough stick until the mass looks like candied honey; then spread a good coat on a cloth and wrap around the finger. If the case is only recent, it will remove the pain in 6 hours.

2. A poke root poultice on a felon cures by absorption, unless matter is already formed; if it is, it soon brings it to a head, and thus saves much pain and suffering.

3. Blue flag and helebore roots, equal parts, boiled in milk and water, then soak the felon in it for twenty minutes, as hot as can be borne, and bind the roots on the parts for one hour, has cured many felons, when commenced in time.

4. A poultice of clay, from an old log house, made and kept wet with spirits of camphor, is also good.

5. Felon Ointment.—Take sweet oil, ½ pt., and stew a 3 cent plug of tobocco in it until the tobacco is crisped; then squeeze it out and add red lead, 1 oz., and boil until black; when a little cool, add pulverized camphor gum, 1 oz.

Mrs. Jordan, of Clyde, O., paid ten dollars for this recipe, and has cured many bad felons, as well as fellows, with it. Bad fellows because they did not pay her. Certainly, this is a rational use of tobacco.

6. Felon Salve.—A salve made by burning one table-spoon of copperas, then pulverizing it and mixing with the yolk of an egg, is said to relieve the pain, and cure the felon in twenty-four hours; then heal with cream two parts, and soft soap one part. Apply the healing salve daily after soaking the part in warm water.

DEAFNESS.—If Recent, to Cure—if not, to Relieve.—Hen's oil, 1 gill; and a single handful of the sweet clover raised in gardens; stew it in the oil until the juice is all out, strain it and bottle for use.

Where deafness is recent, it will be cured by putting three or four drops daily into the ear, but if of long-standing, much relief will be obtained if continued a sufficient length of time.

2. Much has been said in France about sulphuric ether first tried by Madame Cleret, of Paris; and, although she lost her reason by the elation of feeling brought on, no doubt, by the honor given her for the discovery, yet the continued trial of the article does not give the satisfaction which had been hoped for, from its first success.

WARTS AND CORNS.—To Cure in Ten Minutes.—Take a small piece of potash and let it stand in the open air until it slacks, then thicken it to a paste with pulverized gum arabic, which prevents it from spreading where it is not wanted.

Pare off the seeds of the wart or the dead skin of the corn, and apply the paste, and let it remain on ten minutes; wash off, and soak the place in sharp vinegar or sweet oil, either of which will neutralize the alkali. Now do not jam nor squeeze out the wart or corn, like "street-corner peddlers," but leave them alone, and nature will remove them without danger of taking cold, as would be if a sore is made by pinching them out. Corns are caused by pressure; in most cases removing the pressure cures the corn. Nine of every ten corns can be cured by using twice, daily, upon it any good liniment, and wearing loose shoes or boots. See "Good Samaritan."

2. Cure for Corns.—If a cripple will take a lemon, cut off a piece, then nick it so as to let in the toe with the corn, the pulp next the corn—tie this on at night, so that it cannot move—he will find next morning, that, with a blunt knife, the corn will come away to a great extent. Two or three applications of this will make a "poor cripple" happy for life.—*London Field.*

3. Acetic acid, touched to hard or soft corns, night and morning, for one week, will cure them. So will the Samaritan Liniment, which see.

4. Dr. Hariman's Innocent and Sure Cure for Corns, Warts and Chilblains.—Nitric and muriatic acids, blue vitriol, and salts of tartar, of each 1 oz.; add the blue vitriol, pulverized, to either of the acids, and in the same way add the salts of tartar; when done foaming, add the other acid, and in a fews days it will be fit for use.

DIRECTIONS.—For frosted feet, rub them with a swab or brush, wet with this solution very lightly, every part that is red and dry; in a day or two, if not cured, apply again as before. For corns, apply in like manner, scraping off dead skin before using. For warts, wet once a week until they disappear, which will be soon, for it is a certain cure in all the above cases, and very cheap. So says the Doctor, of Anderson, Ind.

5. A gentleman in Ohio offers to pay ten dollars apiece for all corns not cured in three days by binding a bit of cotton batting upon it, and wetting it three times a day with spirits of turpentine.

6. I am assured by a gentleman of Syracuse, N. Y., that a

plaster of the "Green Mountain Salve," put upon a corn, will completely cure it by the time it naturally comes off.

LINIMENTS—Good Samaritan—Improved.—Take 98 per cent. alcohol, 2 qts., and add to it the following articles: Oils of sassafras, hemlock, spirits of turpentine, tincture of cayenne, catachu, guaicucl, (guac.) and laudanum, of each, 1 oz.; tincture of myrrh, 4 ozs.; oil of origanum, 2 ozs.; oil of wintergreen, ½ oz.; gum camphor, 2 ozs.; and chloroform, 1½ ozs.

I have used the above liniment over five years, and cannot speak too highly of its value; I have cured myself of two severe attacks of rheumatism with it, the first in the knee and the last in the shoulder, three years after; my wife has cured two corns on the toes with it, by wetting them twice daily for a few days; and it is hard to think of anything which it has not cured, such as sprains, bruises, cuts, jams, rheumatism, weak back, reducing swellings, curing leg-ache in children from over-playing, for horse flesh, &c. But you will allow me one remark about liniments—they ought in all cases to be put on and rubbed in from twenty to thirty minutes, and laying the hand on the part until it burns from its effects, instead of one or two minutes, as is the usual custom; and if made by the quart, you can use them freely, as the cost is only about one-eighth as much as to purchase the two-shilling bottles. Wetting flannel with the liniment, and binding on, is a good manner of application. Dr. Hale, of this city has adopted this liniment for general use; but for headache and neuralgia, he takes eight ounces of it and adds an ounce of chloroform, and half an ounce of oil of wintergreen, rubbing upon the head, holding to the nostrils, &c. The full prescription will usually cost about two dollars.

2. Liniment for Old Sores.—Alcohol, 1 qt.; aqua amonia, 4 ozs.; oil of origanum, 2 ozs.; camphor gum, 2 ozs.; opium, 2 ozs.; gum myrrh, 2 ozs.; common salt, 2 table-spoons. Mix, and shake occasionally for a week.

This was presented for insertion by H. Loomis, of Edwardsburg, Mich., hoping that it might do many others as much good as it done himself and neighbors. He showed me scars of an old sore on his leg which he had cured with it, after years of suffering; and also called up a young man whose father he had cured of a similar sore, years before, which had never broken out again; he used it twice daily. His leg became sore after a protracted fever. I have great confidence in it. He uses it also for cuts, bruises, horse flesh, inflammatory rheumatism, &c., &c.

3. Dr. Raymond's Liniment.—Alcohol, 1 qt.; oils of origanum-2 ozs., and wormwood, 1 oz.; with camphor gum, 2 ozs.; spirits of turpentine, 2 ozs.; and tincture of cantharides, 1 oz. Mixed, and used as other liniments.

Dr. D. W. Raymond, of Conneaut, O., thinks that the last is the best liniment in the world.

4. German Rheumatic Fluid.—Oils of hemlock and cedar, of each ½ oz.; oils of origanum and sassafras, each, 1 oz.; aqua ammonia, 1 oz.; capsicum, pulverized, 1 oz.; spirits of turpentine and gum camphor, each, ½ oz.; put all into a quart bottle and fill with 95 per cent. alcohol.

The Germans speak equally in praise of this fluid, as a liniment, as Dr. Raymond does of his, besides they say it is very valuable for cholic in man or horse. Dose.—For cholic, for man, half a tea-spoon; for a horse, one-half to one ounce in a little warm water every fifteen minutes, until relieved.

A gentleman purchased a horse for seventy-five dollars which had been strained in one of the fetlocks, worth before the strain one hundred and twenty-five dollars. He cured him with this liniment, and sold him for the original value. He cured his wife also of neuralgia, with the same since I have published this recipe Judge ye of its value.

5. Cook's Electro-Magnetic Liniment.—Best alcohol, 1 gal.. oil of amber, 8 ozs.; gum camphor, 8 ozs.; Castile soap, shaved fine 2 ozs.; beef gall, 4 ozs.; ammonia, 3 F's strong, 12 ozs.; mix, and shake occasionally for twelve hours, and it is fit for use.

This will be found a strong and valuable liniment, and also cheap It may be used in swellings, strains, &c., and rubbed upon the throat breast, and lungs, in asthma, sore throat, etc.

6. Liniment for Spinal Affections.—Take a pint bottle and put into it oil of origanum, wormwood, spirits of turpentine, and gum camphor, of each 1 oz., and fill it with the best alcohol.

Mr. Barr, a gentleman with whom I have been acquainted for some four years, has been troubled with spinal weakness and pains, and he finds great relief from the use of this liniment; and his daughter took it internally for a cough also, with success.

7. Great London Liniment.—Take chloroform, olive oil, and aqua ammonia, of each 1 oz.; acetate of morphia, 10 grs. Mix, and use as other liniments. Very valuable.

8. Gum Liniment.—Take gum myrrh, gum camphor, and gum opium, of each ¼ oz.; cayenne pepper, ¼ oz.; alcohol, 1 pt.; mix.

This liniment is ready for use in three or four days, and is very highly recommended by E. Burrows, of Matamora Lapeer Co., Mich. He prefers rum, if a good article can be got, in place of the alcohol. This would be excellent in cholic or diarrhœa, also.

9. Patent Liniment.—In order that those who purchase the patent liniments may know what they are buying, I give a formula from which over twelve thousand dollars' worth of liniment was

in two years' time, but one of the partners going out of the firm, and into the livery business, gave me the plan as follows:

Take whisky, 15 gals.; and put into it 2 lbs. of capsicum, pulverized, let it stand 10 days and percolate, or draw off the whisky, free of the sediment; in the meantime take 1 gal. of the spirits of turpentine, and put into it oils of origanum, horse-mint, sassafras, and hemlock, 6 ozs. each; add gum camphor, 2 lbs. Mix, and it is ready to sell, for the purpose of gulling those who suppose *everybody* to be *honest* because they are *themselves* so.

But that no loss may arise from the space this liniment recipe occupies here, I will tell you how to make a good liniment by using a part of that with the following:

Take of the patent liniment, 8 ozs.; sweet oil and oils of origanum, sassafras and aqua ammonia, of each, 2 ozs., and mix, shaking well as used, and this mixture will make a splendid horse liniment, with which you can easily blister, by bandaging the part if desired, and wetting the bandage with it.

The first would cost less than $1.00 per gallon, whilst the retail price, two shillings per bottle, makes it over $2.00 per quart. See where your money goes.

10. Lobelia and Cayenne Liniment.—Take a quart bottle and put into it ¼ oz. of cayenne, pulverized, then put in 2 ozs. of lobelia herb, and fill up the bottle with whisky; in two weeks it is ready for use, and applicable for cuts, bruises, strains, sprains, etc.; and it will heal cork cuts in the feet of oxen or horses, without stopping them from labor, and with but very little soreness, by applying two or three times daily.

I know a gentleman who had a gash cut in his scalp, four inches in length, and to the skull in depth, by a falling limb, which by the use of this liniment only, as strange as it may appear, it healed without pain or soreness. But some may object to it as a whisky liniment. I admit it to be such, but by knowing how to make it yourselves, you get it for a whisky price, and if it be not found as good as one-half of the two-shillings-a-bottle liniments, then you may tell me that I do not know when I have a good thing.

11. Liniment—Said to be St. John's.—For 70 dozen bottles, take spirits of turpentine and seneca oils, of each 4 gals.; linseed or sweet oil, 2 gals.; oils of origanum, hemlock, juniper, amber, and laudanum, of each 3 qts.; spirits of ammonia, 1 qt.; tincture of arnica, 2 gals.; camphor gum, 1 lb. Put all into a keg and shake well; when you wish to fill into small bottles, shake it well and draw into a convenient bottle or pitcher to pour from; and shake it well every time you fill five bottles; and shake the bottle whenever you use the liniment; thus it might be called *Shaking* Liniment. No matter what you call it, however, it is a good one.

I obtained the recipe of a young man who worked in Mr. St. John's store over a year; yet much care was taken to prevent the knowledge of its exact composition from being found out by assistants; it is a well known fact, however, that an observing mind can learn much although not expressed in words. Perhaps he will blame me for publishing information gained in that way, but I obtain knowledge for the benefit of the people; and as I have called on the Doctor two different times, to sell my work, but could not succeed, I do not feel under any special obligations to him, and if I did, I go in for the greatest good to the greatest number. Were it not so, I should not publish *much* that is contained in this work, for there are many persons who have, and are making fortunes out of single recipes, now published for the benefit of the world.

Because I could not sell my Recipes to I. L. St. John, a Druggist, of Tiffin, O., however, is not saying I do not sell them to Druggists generally, as I do. In Aurora, Ill., I sold to six, and in Pomeroy, O., to seven, every one in either place, which is not common. They are, however, not only anxious to obtain information generally, but also willing to impart it to others; and how Mr. St. John should have obtained as good recipes as the ones here attributed to him, without sometime having bought, is a little surprising; for, as a general rule, those who put out "Patent Medicines," are not themselves the originators of the recipes; even Dr. Jayne is reported, I know not how truly, to have picked up the recipe in an out-house, for his celebrated Alterative. I say, then, am I not justified in publishing these recipes? Nay, more! am I not honorable in thus benefiting the people? I rest the matter with them; always willing to abide their decision.

Persons only wishing to put up for their own use, will take one-seventieth the various amounts, which will be about as follows:

Turpentine and seneca oils, of each 7⅛ ozs.; sweet oil and tincture of arnica, of each 8⅔ ozs.; oils of origanum, hemlock, juniper, amber, and laudanum, of each 1⅛ ozs.; spirits of ammonia, ½ oz.; and gum camphor, ¼ oz.; which makes a little less than 1 qt., there being 64 qts., besides the gum camphor, in the whole amount.

This calculation will be sufficiently near for all practical purposes.

I have sold the condition powder and liniment, out of the drug store, made by the Doctor, which has always given good satisfaction. And I think any one who tries both will be as well pleased with those made from these recipes as with that which is sent out from Tiffin, and make it for one-fourth the cost of the other.

COD LIVER OIL.—Made Palatable and More Digestible.—To each bottle, add fine table-salt, 1 oz. Mix well.

By this very simple plan cod liver oil has its peculiar unpleasantness overcome, as well as made far more easy for the stomach to dispose of. But even with this improvement, I do not consider a table-spoon

equal, for consumption, to a glass of rich, sweet cream, with a tea-spoon of best brandy in it, to be drank at each meal.

CONSUMPTIVES.—Syrup Very Successful.—Take tamarack bark, without rossing, (the moss may be brushed off,) 1 peck; spikenard root, ½ lb.; dandelion root ¼ lb.; hops, 2 ozs. Boil these sufficiently to get the strength, in 2 or 3 gals. of water, strain and boil down to one gal.; when blood warm add 3 lbs. of honey and 3 pints of best brandy; bottle, and keep in a cool place. DOSE—A wine-glass or a little less, as the stomach will bear, 3 or 4 times daily, before meals and at bed time.

Consumption may justly be called the King of diseases, but he has many times been obliged to haul down his colors, and give place to health, and consequent happiness, when he came in contact with the above syrup. It does not, however, contain any of the articles usually put into syrups for this disease—this of itself ought to obtain for it a consideration. I have been told, and that by a professional man, that there was not an article in it of any value for consumption. I have acknowledged it does not contain any articles *commonly* used for that disease; but allow me to ask if they cure the disease in one case out of a hundred? The answer is, no. I am now using this on a case within a few miles of the city, who had called one of our Professors. He promised benefit, and did benefit about one week; subsequently, two other physicians were also called without any lasting benefit. He had not cut his wood for nearly a year, nor done other labor to any extent; he has now taken our syrup nearly three months; he was weak, spare in flesh, and coughed very much, with cold feet and surface; he is now stout, fleshy, and scarcely any cough; surface and feet warm. What more can be asked? Yet he is very careless, for I called on him on a cold, snowy day, lately, and he was in the woods, for wood. Do I need better proof of its value? No one would expect sickness of the stomach to arise from its use, from the articles of which it is composed, but the first dose usually makes the person rather sick at the stomach, and sometimes vomits, but don't fear to continue its use. I had rather trust to tamarack-bark tea than three-fourths of the consumptive syrups of the day. Let every one who is afflicted with cough, be careful to avoid exposure as much as possible. Remember, with this *syrup*, or *disease*, as long as there is life, there is hope.

But it would be deceptive and wicked to hold out to *all* consumptives the idea that they could be cured—*facts* speak like this, although I have never seen it in print, nor heard the remark, but my own observation says that nine of every ten *hereditary* consumptives will, in the end, die of the disease, while an equal number of those whose disease is brought on by colds being neglected, or from neglect of acute inflammations, etc., may be cured. Then those who know their parents or others in their family to have gone with the disease, need

hardly expect a cure, notwithstanding much benefit may be derived from *care*, with the above treatment, good diet, and out-of-door exercise, while those whose systems are not tainted from parents, may expect a permanent cure.

I shall now throw in a few thoughts of my own, and from the experience of many others in the profession, which I hope may benefit all needing light on the subject.

FIRST, then—Do not go South, to smother and die; but go North, for cool, fresh air; hunt, fish, and eat freely of the roasted game; cast away care, after having trusted all in Christ, that it may be well, living or dying. Take a healthy, faithful friend with you, to lean upon when needed, in your rambles. So shall it be well with many who would otherwise sink to the consumptive's grave. Have your potatoes with you, and roast them in the embers; your corn meal also, which you will mix with cold water, having a little salt in it, and bake on a board before the fire, and then say you cannot make out a good-flavored meal, and a healthy one also, from your roast *venison*, or broiled *fish*, and *roast* potatoes and *johnny*-cake. I will then acknowledge that you are indeed far gone on the consumptive's track, and *especially* if you have been wandering over hills and through the valleys of our northern country in pursuit of the game of which you are about to partake.

SECONDLY,—Do not leave home after having tried everything else in vain, and just ready to wrap the mantle of the grave around you, then you need all the care of many friends, and a quiet place to die. but strike out the first thing when you become certain that permanent disease has fastened upon the lungs; then you may not only reasonably expect a cure, but be almost certain. Have the means with you to avoid getting wet by rains; but often wash and rub the whole surface, wearing flannel next the skin, and clothe yourself according to the weather and sex; for there is no reason why females should not pursue about the same course. They can dress *a la Bloomer*, and with their father, husband, brother, or other *known* friend, derive the same benefit from out-door exercise, like field or forest rambles, botanical huntings, geological surveys, or whatever sports or realities may give just the amount of exercise not to *fatigue* the invalid.

For females who have families and cannot leave them, gardening will be the best substitute for travel, or of all the employments which can be engaged in.

LASTLY,—Those who are already far down the consumptive track, and confined at home, will derive much benefit by using, at each meal, half a pint of rich, fresh cream. In *all* cases it is ahead of Cod-Liver Oil, with *none* of its disagreeableness. And if it can be borne, a tea to a table-spoon of the best brandy may be added.

Much is being said, nowadays, about the necessity of constant inflation of the lungs by long-drawn breaths, holding the breath, also, as long as possible, when thus fully inflated; but, for those whose lungs are extensively diseased, it is not only useless, but very dangerous, from the liability to burst blood-vessels in the lungs, causing hemorrhage, if not instant death. In the commencement of the disease, however, or for those in health, the practice is decidedly good.

2. Half a pint of new milk, with a wine-glass of expressed juice of green hoarhound, each morning for a month, is said to have worked wonders in relieving the soreness of the lungs, and giving tone to the general health in this disease.

3. Chlorate of Potash, for Consumption.—A gentleman of Iowa read a paper about a year ago before the "American Medical Association," upon the subject of Chlorate of Potash in Consumption, giving the history of a few cases only. For the want of a more extended trial of it, the Association thought best not to publish his paper, but referred it back to him, and to the consideration of the other members for further test.

Amongst those members is Dr. A. B. Palmer, of this city, one of the Vice-Presidents of the Association, and Professor of "Practice, Materia Medica," etc., in the University of Michigan, at Ann Arbor—by the way, a gentleman and a scholar. Having had much experience in practice, he saw fit to give it a trial. He has used it in about thirty cases, and with a single exception with marked success; and in that case there was at first much improvement, but the patient was a German who does not understand our language very well, and from this fact when he found that it caused a heat or burning sensation in the stomach instead of going to the professor and have the quantity lessened, he abandoned it altogether. But through Prof. Palmer's kindness I have been permitted to refer to other cases where a very marked amelioration has taken place. One of these, a married lady, although her lungs were full of tubercles, with much coughing, soreness of the lungs, with sharp pains upon full breaths being taken, etc., finds her cough loose, soreness all gone, and that full breaths can be taken without pain, (or stitching, as commonly called,) and fully believes that if she could have had this prescription early in the disease, she would now have been well, yet derives much relief from its use. Another lady has been using it only a few months, and finds that her symptoms are all very much relieved, and she has gained seventeen pounds in flesh.

The Professor assures me that in the first few cases where he prescribed the chlorate, the benefits were so marked, it was really astonishing; which, of course, caused him to go on in its use, until, as before remarked, about thirty cases have been more or less benefited by its use, under his care.

His method of giving it is to put about a tea-spoon of the chlorate into a glass of water, which is to be drank a little at a time, in from six to twenty-four hours, with other appropriate treatment.

If in any case the chlorate should cause a heat or burning sensation at the stomach, lessen the quantity; and unless this does occur, no apprehensions need be felt in using it. It improves the general symptoms, lessening the pulse, etc., whilst the Cod-Liver Oil has never done anything more than to benefit merely as food; and from its very disgusting smell and taste, and the almost impossibility of keeping it upon the stomach, I greatly prefer the fresh sweet cream mentioned above, or the fat meat, as mentioned below.

The hyper-phosphites have been extensively used, but Professor Palmer tells me that in Paris and other parts of Europe, where he traveled during the past summer, that not one well authenticated case of cure by them can be produced. But he feels much encouraged to hope that the chlorate will prove itself worthy of great confidence.

The above was written one year ago; and the reports coming in since then, both in America and from Europe, more than confirm the *expected* benefits and hoped-for advantages from the use of the *chlorate* in this disease.

4. Remarks on the Use of Fat Meats—Preventive of Consumption.—There is so much said against the use of fat meats, and especially pork, as an article of diet, that I cannot better close my remarks upon this subject than by giving the opposite opinions of those in high places, corroborated also by my own experience.

Dr. Dixon, of the *Scalpel*, some time ago, assumed the position that "the use of oils would diminish the victims of consumption nine-tenths, and that that was the whole secret of the use of Cod-Liver Oil, to take the place of fat meats."

Dr. Hooker's observations on the use of fat meats, connected with consumption, are as follows:

"FIRST.—Of all persons between the ages of 15 and 22 years, more than one-fifth eat no fat meat. SECOND.—Of persons at the age of 45, all, excepting less than 1 in 50, habitually use fat meat. THIRD.—Of persons who, between the ages of 15 and 22, avoid fat meat, a few acquire an appetite for it, and live to a good old age, while the greater portion die with phthisis (consumption) before 35. FOURTH.—Of persons dying with phthisis between the ages of 12 and 45, nine-tenths, at least, have never used fat meats."

"Most individuals who avoid fat meat, also use little butter or oily gravies, though many compensate for this want in part, at least, by a free use of those articles, and also milk, eggs, and various saccharine substances. But they constitute an imperfect substitute for fat meat, without which, sooner or later, the body is almost sure to show the effects of deficient calorification,"

A lady-lecturer recently said in this city, in one of her lectures: "Set a piece of *pork* before a lady: oh, horrible! the dirty, nasty, filthy stuff; give us *chicken*—clean, nice chicken." Now this lady, certainly, was no farmer's wife, or she would have observed that the habits of chickens are ten times more filthy than that of the hog, if it be possible; for even the hog's leavings and droppings are carefully overhauled by them, and much of it appropriated to "ladies' meat." But their filthiness is no argument in either case; for nature's strainer (the stomach) throws off all impurities. Why do so many young *ladies*, young *clergymen*, and *students*, die of consumption? Simply because *chicken* or other *lean* meats, hot biscuit, etc., without exercise, make up the sums of their diet; when, if they would eat fat meats, with bread not less than one day old, scrub floors, saw wood, or other arm exercise, according to sex, an hour at each end of each day, they might be spared for years—perhaps to long lives of usefulness, to their families, congregations, or the world.

5. So far as *pork* is concerned as food, the following rule may be safely followed: If it agrees with the stomach, which is known by its digesting without "risings," as it is called, its use may be continued, but if it rises, lessen the quantity, and if it still rises, abandon its use altogether; but it digests better with me than mutton or *chicken*, and I have been trying them for nearly *fifty* years. The same rule is good for all articles of food. As to exercise, for men who are not regular laborers, wood-sawing is the best, next, horseback riding, then walking; for women, hoeing in the garden or field, next, sweeping, dusting, etc., then horseback riding, walking, etc.

6. But I have recently seen a piece going the rounds of the papers as the best cure for consumption in the world, which contains so much good sense that I will close my remarks on the subject by giving it a quotation, and let every one judge for themselves, which to try, if they see fit to give either a trial. It is represented as coming from an *exchange* only, but from its style of remark, I think it must have started from *Hall's Journal of Health:*

"Eat all that the appetite requires of the most nourishing food, such as fresh beef, lamb, oysters, raw eggs, fruit, vegetables, and three times a day take a glass of egg-nog, made as rich as the patient can bear. Avoid all other alcoholic drinks. Bathe twice a week in water made agreeably warm, and in a warm room; after bathing, rub the body and limbs with sweet cream or sweet oil. Exercise daily in the open air; walking is the best. Stand erect, exercise the arms and lungs freely; keep the mind cheerful; take freely of the best cough syrup, and consumption will be a stranger to your household.

"For making the best cough syrup, take 1 oz. of thoroughwort; 1 oz. of slippery elm; 1 oz. of stick licorice, and 1 oz. of flax seed; simmer together in 1 qt. of water until the strength is entirely

extracted. Strain carefully, add 1 pt. of best molasses and ½ lb. of loaf sugar; simmer them all well together, and when cold bottle tight. This is the cheapest, best, and safest medicine now or ever in use."

"A few doses of one table-spoon at a time will alleviate the most distressing cough of the lungs, soothes and allays irritation, and if continued, subdues any tendency to consumption; breaks up entirely the whooping cough, and no better remedy can be found for croup, asthma, bronchitis, and all affections of the lungs and throat. Thousands of precious lives may be saved every year by this cheap and simple remedy, as well as thousands of dollars which would otherwise be spent in the purchase of nostrums which are both useless and dangerous."—*Exchange.* For egg-nog, see "Stimulant in Low Fevers."

OINTMENTS.—For Old Sores.—Red precipitate, ½ oz.; sugar of lead, ½ oz.; burnt alum, 1 oz.; white vitriol, ¼ oz., or a little less; all to be very finely pulverized; have mutton tallow made warm, ½ lb., stir all in, and stir until cool.

Mr. Brownell, of Dowagiac, Michigan, thinks there is no ointment equal to this for fever or any other old sores, from actual trial, as much so as Mr. Loomis does of his Liniment No. 2.

2. Judkin's Ointment.—This ointment has long been celebrated through Ohio and the Eastern States. It was invented and put up by an old Doctor of that name, whose family took to the profession of medicine as naturally as ducks to water. I obtained it of one of the sons, who is practicing at Malaga, Ohio, from whom I also obtained Landolfi's and his own method of curing cancer, (see those recipes,) and he always uses this ointment to heal cancers and all other sores:

Linseed-oil, 1 pt.; sweet oil, 1 oz.; and boil them in a kettle on coals for nearly 4 hours, as warm as you can; then have pulverized and mixed, borax, ½ oz.; red lead, 4 ozs., and sugar of lead 1¼ ozs., remove the kettle from the fire and thicken in the powder; continue the stirring until cooled to blood heat, then stir in 1 oz. of spirits of turpentine; and now take out a little, letting it get cold, and if not then sufficiently thick to spread upon thin, soft linen, as a salve, you will boil again until this point is reached.

He says, and I have no doubt of it, that it is good for all kinds of wounds, bruises, sores, burns, white swellings, rheumatisms, ulcers, sore breasts, and even where there are wounds on the inside, it has been used with advantage, by applying a plaster over the part.

3. Sisson's Ointment.—Best brandy, ½ pt.; turpentine, 1 gill, camphor gum, 1 oz.; beef's gall, ½ pt; (beef's gall bottled with ¼ pt. alcohol, will keep nice for future use); neats-foot oil, 1 pt. Mix.

This ointment, or properly liniment, is probably not equaled for reducing swellings which arise from bad bruises, or swellings of long

standing; rub it in for quite a length of time, then wet a flannel in it and wrap around the parts.

4. Green Ointment.—White pine turpentine and lard, ½ lb. each; honey and bees-wax, ¼ lb. each; melt all together and stir in ½ oz. of *very* finely pulverized verdigris.

In deep wounds and old sores this works admirably. It keeps out proud flesh and heals beyond all calculation, keeping up a healthy discharge. It was used on a horse, which had run upon a fence stake, the stake entering under the shoulder-blade and penetrating eighteen inches alongside of the ribs; the ointment was introduced by stiffening linen cloth with warm bees-wax, and rolling it up into what is called a *tent*, then smearing the ointment upon the tent, and pushing it to the bottom of the wound, which kept the outside from healing until it healed from the bottom, and thus saved the horse, which everybody said must die; and of course everybody always knows. The man owning the horse was thrown from his buggy whilst the horse was running, and had a leg broken; the horse was well before the man. Hiram Sisson, an old farrier and farmer, of Crown Point, Essex Co., N. Y.. has used this and the one bearing his name, No. 3, several years, and speaks of them in the highest terms. Mr. Wykoff, a few miles north of this city, has used this green ointment for several years, curing a deep cut in the thigh of a friend in a few days with it, which induced him to pay ten dollars to an English lady for the recipe; since then he cured a bad case of chilblains, with it, upon a German boy who had not worn boots or shoes for three years, on their account. I have now known it for two years, curing cuts on horses' feet from stepping over corn stubble in spring ploughing, by only a few applications. It is worth more than the cost of this book to any family who has not got it.

This, mixed with equal parts of the "Magnetic," No. 11, and the world cannot beat it for general use.

5. Green Ointment.—Honey and bees-wax, each ½ lb.; spirits of turpentine, 1 oz.; wintergreen oil and laudanum, each 2 ozs.; verdigris, finely pulverized, ¼ oz.; lard, 1½ lbs.; mix by a stove fire, in a copper kettle, heating slowly.

I have given this ointment, varying somewhat from the first obtained of a gentleman at Jamestown, N. Y. who was selling it in large quantities, as he uses the spirits of turpentine instead of the white pine, for that frequently is hard to get, and by some this will be preferred, for the flesh of a few persons will inflame under the free use of verdigris, and it will be seen that this last recipe has not near as much of it in as the first.

6. Dr. Kittredge's Celebrated Ointment,—For "Pimpled-Face," "Prairie Itch," etc.—Take a pint bottle and put into it nitric acid, 1 oz.; quicksilver, 1 oz., and let stand until the silver is cut; then melt lard, ½ lb. in an earthen bowl and mix all together, and stir with a wooden spatula until cold.

Old Dr. Kittredge is an Allopathic physician, but his ointment has been known, over the whole State, as death to the "Michigan, or Prairie Itch," and the Doctor recommends it for Cancerous, Scrofulous and Syphilitic Ulcers, also Salt-rheum, Ring-Worms, "Pimpled-Face," Chronic Inflammation of the Eyelids, etc. APPLICATION.—For cutaneous eruptions, scratch off the scab, warm the cerate, rub in thoroughly once a day; for running ulcers, spread a thin plaster, and not change oftener than once in thirty-six or forty-eight hours.

7. **Mead's Salt-rheum Ointment.**—Aquafortis, 1 oz.; quicksilver, 1 oz.; good hard soap, dissolved so as to mix readily, 1 oz.; prepared chalk 1 oz., mixed with 1 lb. of lard; incorporate the above by putting the aquafortis and quicksilver into an earthen vessel, and when done effervescing, mix with the other ingredients, putting the chalk in last, and add a little spirits of turpentine, say ½ a table-spoon.

Mr. Mead is a resident of this city, advanced in age, over ninety years, and great confidence may be placed in this recipe. He sent it for insertion in the seventh edition of this work, and many have tried it with satisfaction. He first proved it on himself, after suffering with Salt-rheum for ten years; at first it came back after two years; he then cured it again, and now has been free from it about fourteen years. His only object in presenting me the recipe was to do good to his fellow-creatures. Some physicians think that if nitric acid one ounce and three drachms, was put upon the quicksilver, and cut or dissolved by gentle heat, that it would be a better way to prepare it; but I never wish to change when an article works as well as this does.

8. Dr. Gibson, of Jamestown, Pa., says he has never failed in curing salt-rheum or leprosy, (meaning very bad skin diseases) with the following:

First, wash the part with castile soap and water, dry with a soft cloth, then wet the parts erupted with the tincture of iodine, and after this gets dry, anoint with citron ointment. When the eruption exists about parts not covered with clothing, use the following wash alternately with the tincture: Corrosive sublimate, 1 dr.; sugar of lead, ½ ozs.; white vitriol, 2 scruples; salammoniac, 3 drs.; common salt, ½ drs.; soft water, 1 pt.; mix.

He had a case—a young gentleman who was engaged to be married, but the lady would not marry him until cured from the fact that a sore of a leprous or obstinate character surrounded his head where the hat came in contact with it. But patience and *nine* months perseverance removed the scab from his *crown*, and *crowned* him with a help-meet.

Let me here say, that in any disease of long standing, use some of the alterative medicines to cleanse the blood, while using the outward applications. The "Cathartic Alterative" is especially adapted to the skin diseases, and should be continued some time, even if you are not anxious to get married. The Citron Ointment is kept by nearly all druggists.

9. White lead in sweet oil, used as an ointment, cured a lady in Lafayette, Ind., of a bad case of Salt-rheum.

10. Itch Ointment.—Unsalted butter, 1 lb.; Burgundy pitch, 2 ozs.; spirits of turpentine, 2 ozs.; red percipitate, pulvericed, 1¼ oz.; melt the pitch and add the butter, stirring well together; then remove from the fire, and when a little cool, add the spirits of turpentine, and lastly the precipitate, and stir until cold.

This will cure all cases of psora, usually called "The Itch," and many other skin eruptions, as pimples, blotches, etc.

Dr. Beach thinks the animal which infests the skin, in real itch, is the result of the disease, whilst most authors think it the cause.

11. Magnetic Ointment—Said to be Trask's.—Lard, raisins, cut in pieces, and fine-cut tobacco, equal weights; simmer well together, then strain, and press out all from the dregs.

The above is an excellent ointment, and looks like its namesake, and its action is really magnetic. Mix this in equal parts with the first Green Ointment, No. 4, and it will make a good application in Piles, Salt-rheum, and all cutaneous or skin diseases, as well as Cuts, Bruises, etc. If used in Salt-rheum, some of the alterative remedies must be taken at the same time, and long continued.

12. Stramonium Ointment.—The probability is, that for general use, no ointment will be found superior to this, when properly made. It is kept by most druggists, but it is not half as good, generally, as if made by the following directions. I give large proportions, from the fact that it will be used in large quantities. Stramonium is known by the names of "Jimpson," "Stink-weed," 'Thorn-apple," etc,, from its thorny burr.

Pick about a bushel of the leaves, while yet green, having a suitable iron kettle placed over a slow fire; put in a few of the leaves, and mash them as you keep adding, until you get them all mashed into a pulpy mass; then put in lard, 5 lbs., and stew to a crisp; then strain, and box for use. Those who live in towns, and prefer to make it with less trouble, will purchase 1 dr. of the soft extract, kept by druggists, rubbing it with a little water until it is of such a consistence as to allow it to be rubbed into an ointment with lard, 1 oz. This will be better than the sale ointment, but not as good as the "Home Made," above.

It is anodyne (relieves pain) in burns, scalds, old irritable ulcers, skin diseases, painful hemorrhoids (Piles), and is discutient (driving away swellings), and very strengthening to broken limbs, *i. e.*, after the bones are healed, to rub over the limb freely and thoroughly. It reduces the swelling, and gives tone to the muscles, tendons, etc.

We have recently known two cases of fracture, one a compound fracture of the ankle, the other of the wrist, both in persons well advanced in life; in both cases strength returned very slowly, but with double speed by the free application of this ointment; and in the first case it undoubtedly prevented mortification. It is valuable, also, in painful or swelled rheumatism. Or, perhaps what would be pre-

ferable in such cases, is a tincture made from the seeds of the thorny burr, two ounces, to alcohol and water, of each a half-pint. If it is not found ahead of the "Tincture of Arnica," I will give you my head for a foot-ball. In applying it, wet cloths or brown paper, and bind upon the parts, keeping them well wet. To make this tincture, see "Tinctures."

13. Toad Ointment.—For sprains, strains, lame-back, rheumatism, caked breasts, caked udders, etc., etc.

Good sized live toads, 4 in number; put into boiling water and cook very soft; then take them out and boil the water down to ½ pt., and add fresh churned, unsalted butter, 1 lb., and simmer together; at the last add tincture of arnica, 2 ozs.

This was obtained from an old physician, who thought more of it than of any other prescription in his possession. Some persons might think it hard on toads, but you could not kill them quicker in any other way.

JAUNDICE.—Dr. Peabody's Cure.—In its Worst Forms.—Red iodide of mercury, 7 grs.; iodide of potassium, 9 grs.; aqua dis. (distilled water), 1 oz.; mix. Commence by giving 8 drops 3 or 4 times a day, increasing 1 drop a day until 12 or 15 drops are given at a dose. Give in a little water immediately after meals. If it causes a griping sensation in the bowls, and fullness in the head when you get up to 12 or 15 drops, go back to 6 drops, and up again as before.

In two very bad cases of jaundice, I have known the above to be entirely successful.

I am aware that many persons will not use any preparation containing mercury in any of its forms, while there are many others who would use them for that very reason. My object is to benefit *all*, without strengthening the *prejudices* of *any*. For this reason, I give you the following:

2. Drink for Jaundice.—Tie up soot and saffron, equal parts, in a cloth, to the size or half of a hen's egg; let it lie in a glass of water over night; in the morning put the yolk of an egg, beaten, into this water, and drink it. Do this 3 mornings, skipping 3, until nine doses have been taken.

I am assured that it has proved successful in many bad cases. See also "Soot Coffee," No. 12, amongst the Ague remedies.

PILES.—Successful Remedies.—Internal Remedy.—Cream-of-tartar, jalap pulverized, senna, and flowers of sulphur, 1 oz. each; nitrate of potash (saltpetre), ½ oz.; golden seal, 1 oz., thoroughly pulverize all together, in a mortar, and give a tea-spoon three times every day, or the dose may be varied to suit the condition of the patient, taking more or less to suit circumstances, keeping the bowels in a solvent state.

External Application.—Inner bark of the white oak tree, boil and strain, and boil again until you obtain ½ pt. of the extract, very thick; then add ½ pt. of the oil of the oldest and strongest bacon you can procure; simmer together until a union takes place when cold. Then apply by the finger up the rectum every night, until well. Be very strict to abstain from strong and stimulating diet. The above is

a sure cure for blind or bleeding piles, in all cases, sooner or later.

Dr. Harriman, of Andersontown, Ind., has been very successful with this plan of treating Piles; and since I obtained the plan, now two years, I have had one opportunity of proving it efficiency, upon a gentleman who had been laid up for days, and sometimes weeks, with the complaint. By a few applications of the external remedy he has been enabled to keep directly along with his labor.

2. Pile Cerate.—Carbonate of lead, ½ oz.; sulphate of morphia, 15 grs.; stramonium ointment, 1 oz.; olive oil, 20 drops. Mix, and apply 3 times a day, or as occasion and pain may require.

This create has been highly celebrated as a remedy in Piles. It will relieve the pain most assuredly. Piles nave been cured with lamp oil, applied to the parts two or three times a day. Even tallow or any simple ointment, is good for dry piles, that is, for pain in those parts, coming on often in the dead of night, without apparent cause.

3. For External Piles.—The following is very highly spoken of: Take oyster shells wash and burn them, then finely pulverize and rub up with fresh lard; anoint with this, and take internally, sulphur, one ounce, mixed with three ounces of pulverized resin; take night and morning what will lay on a five cent piece. Take every day for the first week, then every three or four days, until well, continuing the ointment.

4. Mrs. Morehead, of Danville, Ind., cured herself of Piles by simply sitting in a hip-bath of warm water, every time the pains would come on, after stools, or any other time, remaining in the bath until the pain left her. Her husband cured himself by sitting in cold water, and using upon the parts an ointment made by stewing celendine in fresh lard. I give these various plans, so that if any one fails, a remedy may certainly be found amongst the many given.

5. G. P. Rogers, of Ironton, O., has known cases cured by using the following ointment: Powdered opium and powdered resin, one ounce each, mixed with one ounce of tallow, and anoint as required.

6. Dr. D. W. Raymond, of Connéaut, O., says: Equal weights of glycerine and tannin will cure Piles, by anointing with it, and that very speedily; also cures sore or cracked nipples in twenty-four hours, and is remarkably good for any excoriation, or sore, of the skin. I know that simple tallow introduced into the rectum is exceedingly beneficial in Piles, which satisfies me that any preparation containing oil, or any kind of grease, is good.

7. I have found in the scrap of an old newspaper, the following, and it is so easily tried, and speaks with so much certainty, and is so simple, that I give it an insertion:

"**Simple cure for Piles.**—Mix one table-spoon of sulphur with half a pint of milk, to be taken every day until favorable symptoms appear, and then occasionally, as the case may require. The above is a cheap, simple, and most infallible cure for that most painful and un-

pleasant disorder. It has been used with complete success in old and inveterate cases where individuals had spent scores of dollars in medical advice. It is equally useful as a preventive. It will injure none, and only requires a trial."

8. Paschal Mason, living near this city, cured a Southern lady, visiting in the neighborhood, who was confined to the bed with them, by making a strong tea of the wild swamp-currant root, drinking occasionally for a few days only.

9. Jimpson leaves and parsely, a handful of each, stewed in lard, one pound, and used as an ointment, has cured many cases.

ANODYNES—Hoffman's Anodyne, or Golden Tincture.—Sulphuric ether, 2 ozs.; alcohol, 4 ozs.; and ethereal oil ¾ dr.; mix. DOSE.—From half to two tea-spoons, (½ dr. to 2 dr.), according to the urgency or pain for which it is given.

It is given in a little sweetened water, and much preferred by the Germans to laudanum, especially where laudanum causes sickness of the stomach. It makes an excellent local application in neuralgia and other painful affections, being second cousin to the "Magnetic Tooth Cordial" and "Paralytic Liniment."

2. Laudanum.—Best Turkey opium, 1 oz.; slice, and pour upon it boiling water, 1 gill, and work it in a bowl or mortar until it is dissolved; then pour it into the bottle, and with alcohol of seventy-six per cent. proof, ½ pt., rinse the dish, adding the alcohol to the preparation, shaking well, and in twenty-four hours it will be ready for use. DOSE.—From 10 to 30 drops for adults, according to the strength of patient, or severity of the pain.

Thirty drops of this laudanum will be equal to one grain of opium. And this is a much better way to prepare it than putting the opium into alcohol, or any other spirits alone, for in that case much of the opium does not dissolve. See the remarks occurring after "Godfrey's Cordial."

3. Paregoric.—Best opium ½ dr.; dissolve in about 2 table spoons of boiling water; then add benzoic acid ½ dr.; oil of anise, ½ a fluid dr.; clarified honey, 1 oz; camphor gum, 1 scruple; alcohol 76 per cent., 11 fluid ozs; distilled water, 4½ fluid ozs.; macerate (keep warm) for two weeks. DOSE.—For children, 5 to 20 drops; adults, 1 to 2 tea-spoons.

Used as an anodyne and antispasmodic, allays cough, relieves nausea and slight pains in the stomach and bowels, checks diarrhœa, and procures sleep. Used principally for children. See the remarks after No. 5, below.

4. Bateman's Pectoral Drops.—Opium in powder, catechu in powder, camphor gum, red sanders rasped, of each, ½ oz.; oil of anise, 1 dr.; dilute alcohol, (alcohol of 76 per cent. and water in equal proportions,) 1 gal. Keep warm for two weeks.

The opium strength of this is about equal to paregoric, and it is used for similar purposes, and doses. See the remarks below.

5. Godfrey's Cordial.—Dissolve pure carbonate of potassa, 1 oz., in water, 5 qts., and add nice golden syrup or best molasses, 3 qts.,

and heat until they begin to simmer, take off the scum, and add laudanum, 9 ozs., and oil of sassafras, 1 dr. Mix well. Used similar to the two last.

REMARKS.—It is a well-known fact that much injury is done to children by the use of anodynes, such as the above, and "Mrs. Winslow's Soothing Syrup," which is now taking the place, to a great extent, in towns, of the foregoing, for I noticed a short time ago eighty-seven empty bottles with Mrs. Winslow's label upon them, sitting on a counter of one of our drug stores, which led me to ask if they put up her syrup. The answer was No, a *lady* in this city has fed that much to *one* child within the past *eighteen* months.

The question might be asked, why do you tell people how to make *any* of these anodynes? Because they are good in proper cases, when properly used, and to give a place for these remarks; for those who are evil disposed will find a way to accomplish their designs, whilst the well disposed will, or can act only from knowledge, and if they do not know the evils arising from the constant use of anodynes on children, are as liable to do evil as the evil disposed.

Then let it be remembered that the constant use of opium in any of its preparations, on children or adults, disturbs the nervous system, and establishes a nervous necessity for its continuation. Then use them only in severe pain, or extreme nervousness, laying them by again as soon as possible under the circumstances of the case. Of course we do not give a recipe for the "Soothing Syrup" spoken of, as its exact composition has not yet come out to the public; but that its soothing properties are owing to opium, there is not the least doubt. See "Carminatives," which are preferable to opiates, especially for children.

RHEUMATISMS.—Inflammatory Rheumatisms.—Bill Wright's and other Cures.—Sulphur and saltpetre, of each, 1 oz.; gum guaiac, ½ oz.; colchicum root, or seed, and nutmegs, of each, ¼ oz.; all to be pulverized and mixed with simple syrup or molasses, 2 ozs. DOSE.—One tea-spoon every 2 hours, until it moves the bowels rather freely; then 3 or 4 times daily, until cured.

Mr. Wright, of the Niagara Hotel, Toledo, O., has several times proved this to be an excellent medicine, and since I obtained it I found a man at Marshall, Mich., one Saturday evening, with his feet and legs so swollen with this disease, that he could but just crawl with two crutches. I filled this prescription and gave him a tea-spoon of it every two hours, until it moved his bowels, then every four hours, and on Monday noon he could walk quite comfortably without cane or crutch, the medicine costing him only twenty cents.

2. Rheumatic Alterative.—In Rheumatism of long standing, the following preparation has often proved very valuable:

Colchicum seed, and black cohosh root, of each, ½ oz., the root to be bruised; best rye whisky, 1 pt.; put together, and let stand 3 or 4

days. Dose.—From 1 tea-spoon to a table-spoon 3 times daily, before meals.

The action will be to loosen the bowels, or cause a little sickness at the stomach; and the dose may be modified, not to cause too great an effect upon the patient either way, but increasing the dose, if necessary, until one of these specific actions is felt, and lessening it if the action is too great in any case.

3. Rheumatic Liniment.—Olive oil, spirits of camphor, and chloroform, of each, 2 ozs.; sassafras oil, 1 tea-spoon. First add the oil of sassafras to the olive oil, then the spirits of camphor, and shake well before putting in the chloroform, shaking when used, keeping it corked, as the chloroform evaporates very fast if left open. Apply 3 or four times daily, rubbing it well, and always toward the body.

I had a brother-in-law cured of a very bad case of inflammatory, or swelling rheumatism, by the use of this liniment—accomplished in about four days, without other treatment. He paid five dollars for the recipe after the cure. But I would recommend the use of this in connection with "Bill Wright's Cure," above, feeling perfectly assured that no attack will stand before the internal and external combination.

4. J. B. Hitchcox, Ypsilanti, Mich., uses spirits of turpentine, 1 pt.; tar, 2 tea-spoons; oil of vitriol, 1 tea-spoon; mixing in a mug; then sets them on fire, letting it burn 15 minutes, and bottle for use.

He bathes the parts freely twice daily with this preparation, then binds on the mashed tory-weed, as mentioned under the head of "Reducing Swellings," and gives a little spirits of turpentine internally.

5. Alvah Raymond takes rum, 1 pt.; neat's-foot oil, ½ pt., or if the joint is stiff, skunk's oil instead of the other; spirits of turpentine, 1 gill, and simmers them together, and bottles for use, rubbing it in thoroughly 3 times daily.

He also directs to soak the feet in hot water, scraping the bottoms of the feet with an old knife; then he has poke root roasted and mashed, mixing with it tar and sulphur, to form drafts for the feet. With this method of treatment he assures me he has been very successful for 30 years. And it bears so strong a resemblance to Dr. Kittredge's preparation, next following, for stiffened joints in rheumatism, that it gives me double confidence in them both.

6. Dr. Kittredge's Remedy for Rheumatism and Stiff Joints.—Strong camphor spirits, 1 pt.; neat's-foot, coon, bear, or skunk's oil, 1 pt.; spirits of turpentine, ½ pt. Shake the bottle when used, and apply 3 times daily, by pouring on a little at a time and rubbing in all you can for 20 to 30 minutes.

The old Doctor recommends this as a sure cure for chronic rheumatism, sprains, stiff joints, where they have not formed an anchylosis, that is, if the bones have not actually grown together; and as remarked in connection with his ointment, No. 6, he has been a very celebrated physician for many years; but like many *other* men with

superior minds, oh! how fallen. Rum, and its advocates, have got a most fearful account to balance.

7. French and Other Remedies for Chronic Rheumatism.—Dr. Bonnett, of Graulbet, France, states in a letter to the *Abeille Medicale*, that he "has been long in the habit of prescribing:

"The essential *oil* of turpentine for frictions against rheumatism. And that he has used it himself with perfect success, having almost instantaneously got rid of rheumatic pains in both knees and in the left shoulder."

He was led to make the prescription from having used the *oil* of turpentine to wash coal tar and other sticking mixtures from his hands. After having washed his hands in soap and water, and drying them, a pricking sensation, like an electric spark upon the knuckles from a machine lasting about two hours, was always experienced, and it is to this exciting action that he attributes its efficacy. It may be used twice or thrice daily.

8. Chronic Rheumatism has been cured in twenty-four hours, after two years' suffering, by using alcohol, spirits of turpentine, sweet spirits of nitre, and oil of juniper, equal parts of each; mix; rub well into the parts, and take ten drops at bed time in water.

9. Bitters for Chronic Rheumatism.—Prickly-ash berries, spikenard root, yellow poplar and dog-wood barks, of each ½ lb.; all pulverized and put into a gallon jug, and fill it up with brandy. DOSE.—A wine glass of it is to be taken 3 times daily before meals.

A baker, of Lafayette, Ind., was cured by the use of this amount, of a very bad case of this disease, of long standing.

10. David Mowry, of Greenville, Ohio, says yellow poplar, dogwood, prickly-ash, wild cherry, and white-ash barks of the trees, equal quantities of each, a good large handful, boiled in 2 gals. of water to 1, and add 1 gal. of good old rye, will, if taken freely 3 times daily, cure the worst inflammatory rheumatism in the world.

There is no question but what both of these preparations, and the next also, are good, if made sufficiently strong with the barks. But I should consider them much more applicable in chronic cases, or rheumatism of long standing; and in these very applicable indeed; and I am well satisfied that no one will take them for spirits.

11. Chronic Rheumatism, has been cured by taking the bark of a bearing crab-apple tree, and putting a sufficient amount of it into whisky to make it *very* strong, then taking a wine-glass three times daily, until a gallon was used.

12. Green Bay Indian's Remedy for Rheumatism.—Wahoo, bark of the root, 1 oz.; blood-root, 1 oz.; black cohosh root, 2 ozs.; swamp hellebore, ½ oz.; prickly-ash bark or berries, 1 oz.; poke root, cut fine, 1 oz.; rye whisky, 1 qt.; let stand a few days before using. DOSE.—One tea-spoon every 3 or 4 hours, increasing the dose to 2 or 3 tea-spoons, as the stomach will bear.

Soak the feet well and go to bed, covering up warm, and taking the "Sweating Drops" between each dose, as there directed, for three or

four hours, and repeat the sweating every day until the disease surrenders to the treatment. If at any time the head feels too full, or the stomach sickens too much, drop down to the first dose of a tea-spoon, or even less, if necessary.

This prescription is from Jacob S. Cornelius, an Indian of Green Bay, who was very successful in Illinois, with it, in this disease.

13. I know an old physician who assures me that he has cured cases where all other remedies failed, with saltpeter, beginning with twenty grains, and doubling the dose every three or four hours, until it reached half an ounce, in a very robust and plethoric patient; but this dose would be too large to venture upon by persons not of a plethoric habit. But as it is mostly prescribed, by putting a table-spoon to a pint of whisky, then a tea-spoon for a dose; you might as well expect to dip the Atlantic into the Pacific with a tea-spoon, as to cure rheumatism in that slow way. It may be taken in quantities from half an ounce to an ounce and a half, in the twenty-four hours, being largely diluted with water. If pain should come on in the stomach, under its use, stop it at once, and give large quantities of mucilaginous drinks, such as slippery-elm water, gum-arabic water, flax-seed tea, etc.

14. New Remedy.—Kerosene oil, 3 ozs.; skunk's oil, 1 oz.; mix, and shake when applied. Put it on quite freely, and heat it in by the stove, or by means of a hot shovel.

A firm of grocers, Slawson & Geer, of this city, have been using this mixture during the past winter upon their own persons, and have recommended it to many others, amongst them one of the Clergymen, and also the President of the University, and so far as they know, it has proved very successful, relieving the pain directly.

15. One of our physicians in the city has used a preparation very nearly resembling the above, but varying sufficiently to satisfy myself that any other animal oil will do as well as that from the highly-flavored one above mentioned.

He used kerosene oil, 2 ozs.; neat's-foot oil, 1 oz.; oil of origanum, ½ oz.; mixed and shaken as used.

The smell of the kerosene oil is not very pleasant, but if a pair of ankles and feet, badly swollen, so much so that you could not walk on them for months, could be cured in two or three weeks, as it was in this case, it might be well to put up with its disagreeable smell. Rub and heat it in thoroughly twice daily.

ASTHMA.—Remedies.—Elecampane, angelica, comfrey, and spikenard roots, with hoarhound tops, of each 1 oz.; bruise and steep in honey, 1 pt. DOSE—A table-spoon, taken hot every few minutes, until relief is obtained, then several times daily until a cure is effected.

It cured a young lady, near the "Falls of the Ohio," whom the doctors said it was wicked to disturb. "Let her *die in peace*," was

their advice to the parents. An old lady, instead, let her *live* in peace. It will be found very excellent in any cough; even low consumptives will find great relief from its use.

2. Dr. J. K. Finley, of Pittsburg, cured a lady with whom I afterwards became acquainted, and from the completeness of the cure, I was induced to write to the doctor and obtain the prescription. It is as follows:

Oil of tar, 1 dr.; tincture of veratrum viride, 2 drs.; simple syrup, 2 drs.; mix. DOSE.—For adults, 15 drops, 3 or 4 times daily.

I have very great confidence in this prescription.

3. A lady at Yellow Springs, O., tells me that she cured herself of Asthma, by using, for her common drink, a tea made of the leaves of common chestnut, which had fallen from the tree in autumn; sweeten well, and continue its use for 2 or 3 months.

She used it for a month at first, and it returned, when she continued its use for two months; and ten years have elapsed without its return. It is certainly safe as well as simple, and of easy trial.

Lobelia is considered by some a specific in Asthma, but the prejudice against it is so great I forbear speaking further of it; but:

4. Iodide of potassium has cured a bad case of Asthma, by taking 5 gr. doses, 3 times daily. Take ½ oz. and put it into a vial, and add 32 tea-spoons of water—then 1 tea-spoon of it will contain the 5 grs., which put into ½ gill more of water, and drink before meals.

COMPOSITION POWDER.—Thompson's.—"Bayberry bark, 2 lbs.; hemlock bark, 1 lb.; ginger root, 1 lb.; cayenne pepper, 2 ozs.; cloves, 2 ozs.; all finely pulverized and well mixed. DOSE.—One-half of a tea-spoon of it, and a spoon of sugar; put them into a tea-cup and pour it half full of boiling water; let it stand a few minutes and fill the cup with milk, and drink freely. If no milk is to be obtained fill up the cup with hot water.

"This, in the first stages and less violent attacks of the disease, is a valuable medicine, and may be safely employed in all cases. It is good in relax, pain in the stomach and bowels, and to remove all obstructions caused by cold. A few doses, the patient being in bed with a steaming stone at the feet, or having soaked the feet fifteen or twenty minutes in hot water, drinking freely of the tea at the same time, will cure a bad cold, and often throw off disease in its first stages." I use it, taking or giving, lobelia emetics, as mentioned under the head of "Eclectic Emetics." I use it also as a:

2. Dyspeptic Tea.—Where an attack has been brought on by over-indulgence at an extra rich meal, you will find immediate and generally perfect relief by having a cup of this tea made, and drinking about one-half of it fifteen minutes before meals, and the balance just as you sit down to the meal, not taking any other fluid at all until after digestion is over, following up the same plan for a few days or weeks, as may be necessary. It stimulates the stomach to action,

causing digestion and absorption, preventing also the accumulation of gas, which is the cause of eructations of wind from the stomach, commonly called belching, and gives tone to the whole system.

A cup of this tea taken when going out into extreme cold, will be found a better warmer than the whisky or any other ardent spirit, which so many resort to upon such occasions; and, what is best of all, it will be found:

3. A Perfect Cure for Drunkenness.—Let those who are accustomed to the excessive use of ardent spirits, and who wish to stop the practice, I say, let such have a cup of this tea made, as above directed, and drink a part of it immediately on rising in the morning, and the balance just before meal time, keeping entirely away from the places of temptation, they will find a warm, healthy glow spreading from the stomach over the whole system, with a desire for food instead of "rot-gut." Follow this up faithfully, two or three times daily, or whenever the *craving* begins for the accustomed stimulus, for a few days or *weeks*, if necessary, and it will be found that the cayenne, which is the purest stimulant in the whole Materia Medica, with its assistant, the bayberry, which stimulate without an after *prostration*, have gradually *supplied and satisfied* the previous false appetite or cravings of the stomach; whilst the combination has *toned* up the stomach, together with the whole system, AND AGAIN YOU FIND YOURSELF A MAN. But remember, oh, remember! *your only safety is in keeping entirely away from places where intoxicating spirits are kept or sold!*

A *burned* child will not play with fire. I would to God that a burned *man* was equally wise. For not *one* in a *thousand* can resist the solicitation of enemies, (called friends,) to take a glass, just *one*, and that one glass acts like *fresh coals* upon *extinguished* bands, and the fire goes ahead again with a hundred-fold more energy than if thrown upon wood which had never been charred; hence, the propriety of the sentence, "plucked as a brand from the everlasting burnings,"—for if *re-kindled*, there is but little prospect of another extinguishment of the raging fire. Dr. Thompson, notwithstanding all that has been said against him, has done more good than any other medical man that ever lived; for he set the people to studying for themselves.

STIMULANT—In Low Fevers, and After Uterine Hemorrhages.—Mistura Spiritus vini Gallici.—Best brandy, and cinnamon water, of each, 4 fluid ozs.; the yolks of 2 eggs, well beaten; loaf sugar, ½ oz.; oil of cinnamon, 2 drops; mix. DOSE.—From ½ to 1 (fluid) oz., as often as required. This makes both eat and drink. Of course any other flavoring oil can be used, if preferred, in place of the cinnamon.

This mixture is an imitation of the well-known compound termed "egg-flip." It is an exceedingly valuable stimulant and restorative,

and is employed in the latter stages of low fevers, and in extreme exhaustion from uterine hemorrhages. It may be used in place of the "egg-nog" spoken of in the treatment of consumption, No. 6.

ALTERATIVES.—Syrup, or Blood Purifier.—Honduras, sarsaparilla, 12 ozs.; guaiacum shavings, 6 ozs.; wintergreen leaf, 4 ozs.; sassafras root bark, 4 ozs.; elder flowers, 4 ozs.; yellow dock, 3 ozs.; burdock root, 4 ozs.; dandelion root, 6 ozs.; bitter-sweet root, 2 ozs.; all bruised. Place these ingredients in a suitable vessel, and add alcohol, 1 pt., with water sufficient to cover handsomely, set them in a moderately warm place for 3 or four days, pour off 1 pt of the tincture and set it aside until you add water to the ingredients and boil to obtain the strength, pour off and add more water and boil again, then boil the two waters down to 1 qt.; strain, and add the liquor first poured off, and add 2½ lbs. crushed or coffee sugar, and simmer to form a syrup; when cool, bottle and seal up for use. DOSE.—One to two table-spoons, according to the age and strength of the patient, ½ hour before meals and at bed-time.

This, or any other alterative, when given, should be followed up for weeks or months, according to the disease for which it is prescribed, as scrofula, and for every disease depending upon an impure condition of the blood. It ought to be used in sore eyes of long standing, old ulcers, salt-rheum, etc. I would not give this for Jayne's Alterative, nor Swain's, Townsend's or Ayer's Sarsaparillas, because I know it is good, and we also know what it is made of.

2. Alterative, Very Strong.—Poke, mandrake, yellow dock, sassafras, blue flag, roots, and bark of the roots, guaiac-wood raspings, and sweet elder flowers, of each 4 ozs; caraway seed, 3 ozs.; bruise the roots, and put to the whole, alcohol, 1 qt., and water to cover all handsomely; let stand 3 or 4 days in a warm place, as the last recipe above, making every way the same, except to pour off 1 qt. instead of 1 pt., as in the first, of spirit, then boil the water to 1 qt., adding 4 lbs. of sugar with the qt. of spirit tincture. The dose being only 1 table-spoon 4 times daily, as above.

But if that amount should make the bowels too loose, reduce the quantity; and if that amount does not act upon the bowels at all, increase the dose to keep the bowels solvent. This may be used in the most inveterate diseases of long standing, syphilis not excepted.

3. Alterative Cathartic.—Powder.—Rochelle salts, five ozs.; cream-of-tartar, 2 ozs.; sulphur, 1 oz.; (Epsom salts may be used, but are not quite as good); place the salts in a dripping-pan and set in the stove-oven until all the water of crystalization is dried out; then place all in a mortar and rub finely and thoroughly together. DOSE.—Mix up a few spoons of the powder with molasses; then take a teaspoon every 3 or 4 hrs. until a free cathartic action is kept up for 24 to 36 hrs., then take once or twice daily only, to act on the blood, increasing once in 10 days to get up the cathartic action, as at first.

This alterative is especially valuable in any disease of the skin, as itch, pimples, salt-rheum, and any other eruptions where any outward application is being made, or is about to be made; also valuable in sore eyes.

4. Alterative, Tonic, and Cathartic Bitters.—Best rye whisky,

and water, of each, 1 qt.; best unground Peruvian bark, colombo root, and prickly-ash berries, of each 2 ozs.; prickly-ash, black cherry, and poplar barks, of each, 1 oz.; poke-root, mandrake-root, and cloves, of each ½ oz.; all to be the dry articles, and all to be pulverized before putting into the spirits; shake every day for a week, by which time it will be ready for use. DOSE.—One to two table-spoons at morning and evening meals.

Although this alterative is mentioned last in the list, yet it is not least in value. I first made this prescription for my own use, feeling that I needed something of just such a nature, and it worked so admirably that I gave it to others. It has given such entire satisfaction, that I am now, at the *tenth* edition, giving it a place to do a greater good than if kept from the world.

If, in any case, it causes any griping sensations, or too great action upon the bowels, lessen the dose, and if neither of these actions is felt, increase the dose, or take it three times daily. I think any of the fruit wines will do in place of the spirits and water, by adding alcohol, one-half pint.

It will be found very valuable in all cases of weakness from general debility, and especially so when the liver is inactive, known by constant costiveness.

After using out the spirits, it may be filled again in the same way. It will be found very valuable in ague, and after all fevers, preventing relapse, and strengthening up the general system.

DIURETICS.—Pill, Drops, Decoction, etc.—Solidified copaiba, 2 parts; alcoholic extract of cubebs, 1 part; formed into pills with a little oil of juniper. DOSE.—One or two pills 3 or 4 times daily. Druggists can obtain them of Tilden & Co., New York.

This pill has been found very valuable in affections of the kidneys, bladder, and urethra, as inflammation from gravel, gonorrhea, gleet, whites, leucorrhea, common inflammations, etc. For giving them a sugar coat, see that heading, if desired.

2. Diuretic Drops.—Oil of cubebs, ½ oz.; sweet spirits of nitre, ½ oz.; balsam copaiba, 1 oz.; Harlem oil, 1 bottle; oil of lavender, 20 drops; spirits of turpentine, 20 drops; mix. DOSE.—Ten to 25 drops, as the stomach will bear, 3 times daily.

It may be used in any of the above diseases with great satisfaction.

3. Diuretic Decoction.—Queen of the meadow, dwarf-elder, yellow dock and poke-roots, of each 1 oz.; dandelion, burdock, American Sarsaparilla, and blue flag roots, of each ½ oz.; grind or pound all up, and thoroughly mix. DOSE.—Take up a pinch with the ends of the fingers and thumb of one hand, say ¼ to ½ oz. and pour upon it 1 pt. of boiling water, steeping a while; when cool, take a swallow or two sufficiently often to use up the pint in the course of the day.

Follow this plan two or three days, or as may be necessary, resuming the course once in ten or twelve days. It may be used in all obstructions of the kidneys, where the urine is high colored or scanty.

4. Diuretic Tincture.—Green or growing spearmint, mashed, put into a bottle and covered with gin, is an excellent diuretic.

5. Diuretic for Children.—Spirits of nitre—a few drops in a little spearmint tea—is all sufficient. For very young children, pumpkin seed, or watermelon seed tea is perhaps the best.

DROPSY.—Syrup and Pills.—Queen of the meadow root, dwarf-elder flowers, berries, or inner bark, juniper berries, horse-radish root, pod milkweed or silkweed, often called, root of each, 4 ozs.; prickly-ash bark or berries, mandrake-root, bitter-sweet, bark of the root, of each 2 ozs.; white mustard, 1 oz; Holland gin, 1 pt.

Pour boiling water upon all, except the gin, and keep hot for 12 hours; then boil and pour off twice, and boil down to three quarts and strain, adding three pounds of sugar, and lastly gin. DOSE.—Take all the stomach will bear, four times daily, say a wine-glass or more. This will be used in connection with the following:

2. Dropsy Pills.—Jalap, 50 grs.; gamboge, 30 grs.; podophyllin, 20 grs.; elaterium, 12 grs.; aloes, 30 grs.; cayenne, 35 grs.; Castile soap, shaved, dried and pulverized, 20 grs.; croton oil, 90 drops; powder all finely, and mix thoroughly; then form into pill mass by using a thick mucilage made of equal parts of gum arabic and tragacanth, and divide into 3 gr. pills. DOSE.—One pill every 2 days for the first week, then every 3 or 4 days until the water is evacuated by the combined aid of the pill with the above syrup.

In this disease the work must be very thorough, and I am inclined to think that if our directions are followed, that whoever find themselves under the operations of the medicine will consider the work to be about as thorough as we expect. Some sickness of the stomach may be expected under the operation of the pill, but never mind it; go ahead and four or five days will satisfy most persons of the value of the treatment; for you may expect to see the greatest evacuations, front and rear, that you have ever witnessed. If the patient should become weak and exhausted under the continued treatment, slack up a little and throw in beef tea, wine, etc., with rich, nourishing diet, and no danger need be apprehended. The above will be found very valuable in bilious colic, and other cases hard to operate upon. They have operated in fifteen minutes, but not usually so quick, of course; but it will generally be found best not to venture over one pill at a dose; two have been taken, however, but they made a scattering among the *waste* paper, causing *fourteen* evacuations, having to call for the second "chamber" the first fire. Some have called them the "Irish Pill," from their resemblance to the Irish girl with her brush and scrub-broom. They make clean work.

IRRITATING PLASTER—Extensively Used by Eclectics.—Tar, 1 lb.; Burgundy pitch, ½ oz.; white pine turpentine, 1 oz.; resin, 2 ozs. Boil the tar, resin, and gum together a short time, remove from the fire, and stir in finely pulverized mandrake root, blood root, poke root, and Indian turnip, of each 1 oz.

This plaster is used extensively in all cases where counter irritation or revulsives are indicated; as in chronic affections of the liver and lungs, or diseased joints, etc. It is applied by spreading it on

cloth and over the seat of pain, renewing it every day, wiping off any matter which may be on it, and also wiping the sore produced by it with a dry cloth, until relief is obtained, or as long as the patient can bear it. Always avoid wetting the sore, as it will cause inflammation and you will be obliged to heal it up immediately, instead of which the design is to keep a running sore as long as may be necessary, using at the same time constitutional remedies as the case may require.

INFLAMMATION—Of the Liver.—Inflammation of the liver, or as it is generally called "Liver complaint," is of two forms, acute and chronic. The acute form is known by a sense of weight and pain in the right side, under the short ribs, and often in that shoulder, or between the shoulders, pale or yellow appearance, often great depression of spirits, not much appetite, costiveness, high colored urine, etc., and often with fever, and sometimes with pain similar to that of pleurisy, difficult breathing, dry cough, and sometimes sickness, with vomiting.

In the chronic, or long standing complaint, in addition to the above, there is generally flatulence, with pain in the stomach, foul breath and mouth, coated tongue, indigestion, eyes yellow, stools clay colored, with great weakness and slow emaciation, frequently going on to ulceration, giving symptoms as mentioned under the head of "Ointment for Ulcerated Liver," etc.

In the acute form you will pursue the same course as mentioned under the head of "Pleurisy," besides taking either of the Liver Pills or Liver Drops mentioned below, in full cathartic doses until relieved, but in the chronic form, the Pills, in connection with the "Ointment," or "Irritating Plaster," will be found all sufficient, unless Jaundice has already set in; then look to the directions under that disease.

2. Eclectic Liver Pill.—Podophyllin, 10 grs.; leptandrin, 20 grs.; sanguinarin,* 10 grs.; extract of dandelion, 20 grs.; formed into 20 pills, by being moistened a little with some essential oil, as cinnamon or peppermint, etc. DOSE.—In chronic diseases of the liver, take 1 pill at night for several days, or 2 may be taken at first to move the bowels; then 1 daily.

In connection with the pill, wear the "Irritating Plaster," over the region of the liver, washing the whole body daily, by means of towels, and rubbing dry, being careful not to wet the sore caused by the plaster; as an active cathartic from two to three pills may be taken in all cases where calomel or blue pill are considered applicable by "Old School Physicians."

3. Liver Pill Improved.—Leptandrin, 40 grs.; podophyllin and cayenne, 30 grs. each; sanguinarin, iridin, and prickly ash, 15 grs. each; see that all are pulverized and well mixed; then form into pills

*NOTE.—These articles are kept by Eclectic Physicians, and are beginning to be kept by Druggists generally.

mass by using ½ dr. of the soft extract of mandrake and a few drops of anise oil, then roll out into 3 grain pills.

DOSE.—Two pills taken at bed time will generally operate by morning; but there are those that will require three, whilst one pill every night on retiring will be found the best corrective of the liver of anything now in use, for common cases; but in very bad cases where the pill does not arouse the liver to action, take the following:

4. Liver Pills for Obstinate Cases.—Tinctures of mandrake and blue flag roots, of each 1 oz.; and of culvers root, 2 ozs. DOSE.—For adults, 1 tea-spoon every 3 to 5 hours, increasing the dose gradually until you reach two or three tea-spoons, if the mouth does not become sore and the stomach not sickened nor the bowels moved too freely.

These drops are especially applicable in liver and spleen enlargements, and cases of very long standing disease of these organs; and in such cases it may be well to use externally, over the liver and spleen, especially if there is believed to be ulceration, the following:

5. Ointment for Ulcerated Liver, Ague Cake, etc.—Take a good handful of smartweed, wormwood, and the bark of sumac root; boil all together to get the strength, then strain and boil down carefully to about ½ pt., adding lard ¼ lb., and simmering together; when nearly cool add a tea-spoon of spirits of turpentine.

Apply at night, by rubbing it over the liver or other organ which may have pain or disease located upon it, heating it well by the stove or by a heated iron, putting it on, rubbing, and heating it in three or four times each application.

I obtained this prescription from the Rev. Mr. Fraser, of this city, whose nephew was so afflicted with ulceration of the liver that a council of Doctors said he must die; the pain was situated just under the short ribs of the right side, completely bowing him together, like the one of old who could "in no wise lift up herself." He had had a sister, who died some years before; but at this juncture of the case the invalid dreamed of meeting her, and she gave him this prescription, which he told his mother in the morning; and she would not rest until it was tried and it entirely cured the patient. The Elder tells me he has given it to a great many persons, for pains of internal organs, ague cakes, etc., and that it has given great satisfaction—a perfect cure. The two first named articles I know to be good for what they are here recommended, but they are generally used by boiling and laying the herbs over the affected parts, or by steaming the parts over the herbs. I see no reason why spirits from the other world should not be permitted to communicate with the spirits of friends here; but that they are so permitted, to communicate in such a way as to be understood by us frail mortals, I never did, nor do I now believe, neither do I believe this to be the *first* dream of this character which has proved valuable. There are many things of a similar character

in the history of a number of individuals in the range of my acquaintance, more singular and unaccountable than the above, which would be very interesting to relate, but the nature of this work does not admit. If this shall benefit any, I shall be satisfied.

PILLS.—Nervous Pill.—Alcoholic extract of the Ignatia Amara, (St Ignatius bean) 30 grs.; powdered gum arabic, 10 grs. Make into 40 pills. DOSE.—One pill to be taken an hour after breakfast, and one and hour before retiring at night. Half a pill is enough for young, or very old or very delicate persons. The pills may be easily cut if laid on a damp cloth for a few moments.

These pills will be found applicable in bad dyspepsia, nervous headache, sleeplessness, palpitation of the heart, confusion of thought, determination of blood to the head, failure of memory, and all other forms of general nervous debility, no matter of how long standing. When a prominent advantage is discovered in two weeks from the commencement of the medicine, one a day will suffice until all are taken.

The extract is made by pulverizing the seed or bean, and putting it into alcohol from ten to fourteen days, then evaporating to the consistence for working into pill mass with the powdered gum.

This is the prescription of the Rev. John M. Dagnal, the "Retired Physician," brought out in 1854, and to my attention, and that of the medical class, by Professor Palmer, in the University of Michigan, in the winter of '56-7. He said when this prescription first came out he was practicing in Chicago, and many persons sent for the pills, and derived much benefit from their use at first, but soon after they seemed to lose their efficacy, and he presumed the reason to be that the demand was so great that something else was substituted in place of the extract. This being the case, druggists ought to prepare the extract themselves, so as to furnish patients with the genuine article for home use. It is undoubtedly a splendid prescription, if put up with fidelity.

Pills.—To Sugar Coat.—Pills to be sugar-coated must be very dry, otherwise they will shrink away from the coating and leave it a shell, easily crushed off. When they are dry, you will·

Take starch, gum arabic, and white sugar, equal parts, rubbing them very fine in a marble mortar, and if damp, they must be dried before rubbing together; then put the powder into a suitable pan, or box, for shaking; now put a few pills into a small tin box having a cover, and pour on to them just a little simple syrup, shaking well to moisten the surface only, then throw into the box of powder and keep in motion until completely coated, dry, and smooth.

If you are not very careful you will get too much syrup upon the pills; if you do, put in more, and be quick about it, to prevent moistening the pill too much, getting them into the powder as soon as possible.

3. Anodyne Pills.—Morphine, 9 grs.; extract of stramonium and hyosciamus, of each, 18 grs.; form into pill-mass by using solution of gum arabic and tragacanth, quite thick. Divide into 40 pills. DOSE.—In case of severe pain or nervousness, 1 pill taken at bed-time will be found to give a quiet night of rest.

The advantage of this pill over those depending entirely upon opium or morphine for their anodyne properties, is that they may be taken without fear of constipation.

CROUP.—Simple, but Effectual Remedy.—This disease is attended by inflammation of the windpipe, spasms of the muscles of the throat, occasioning a peculiar sound, hard to be described, but when once heard by a mother, never to be forgotten; cough, difficult respiration, and fever. The phlegm or mucus often filling or very much obstructing the throat, and finally forming a false membrane which cuts off all possibility of breathing.

The first thing to be done is to get hot water ready as soon as possible, having *always* on hand a bottle of emetic tincture, composed of equal parts of the tinctures of lobelia and blood-root. DOSE.—According to the age of the child: if 2 years old, about 1 tea-spoon every 10 to 15 minutes until free vomiting takes place; if 5 years old, 2 tea-spoons, and increasing in proportion to age to 1 table-spoon for a child of ten years—decreasing for very young children, say of 4 to 8 months, only 8 to 12 drops. Place the feet as soon as possible into hot water, and keep them there until vomiting takes place, laying cloths wrung out of hot water upon the breast and throat, changing sufficiently often to keep them hot. The next morning give sufficient of the "Vegetable Physic" to move the bowels rather freely. The emetic tincture should be given in some warm tea.

Repeat the emetic as often as the returning symptoms demand it, which usually occurs the following night, repeating the cathartic every second or third day, and I will guarantee success if commenced in any kind of reasonable time; but usually no repetition will be needed if parents keep the preparation in the house so as to begin with the beginning of the disease.

2. Dutch Remedy.—Goose oil, and urine, equal quantities. DOSE.—From a table-spoon of the mixture, according to the age of the child. Repeat the dose every 15 minutes, if the first does not vomit in that time.

This remedy will be found valuable in mild cases, and where the first is not at hand; and I know it to have saved a child when one of their best doctors said it must die; but bear in mind he had not used our first prescription; yet an old Dutch woman came in at the *eleventh* hour, from the next-door neighbor's wash-tub, and raised the child with what she called "p—s and goose grease." I have used it with success.

3. Croup Ointment.—Take mutton suet and nice lard, of each ½ lb.; spermaceti tallow, ½ oz.; melt them together and add ½ pt. of the best vinegar, and simmer until the vinegar is nearly evaporated, skimming well, and constantly stirring, until it begins to granulate;

then add oils of amber and spruce, and pulverized sugar of lead. of each, ½ oz.; now remove from the fire, and stir until cool. DOSE.—For a child of 2 years old give from ½ to 1 tea-spoon every half-hour until relief is obtained, or vomiting takes place; at the same time rubbing upon the chest, and over the throat and lungs, freely.

Dr. ———, of Finley, O., says, from his experience, he knows it will cure as often as quinine will break up the ague.

HYDROPHOBIA AND SNAKE BITES.—To Prevent and Cure.—A. Hubbard, of Boone county, Ill., in a letter to the St. Louis *Republican*, says: "Eighteen years ago my brother and myself were bitten by a mad dog. A sheep was also bitten at the same time. Among the many cures offered for the little boys (we were then ten or twelve years old), a friend suggested the following, which he said would cure the bite of a rattlesnake:

"Take the root of common upland ash, commonly called black ash, peel off the bark, boil it to a strong decoction, and of this drink freely. Whilst my father was preparing the above, the sheep spoken of began to be afflicted with hydrophobia. When it had become so fatigued from its distracted state as to be no longer able to stand, my father drenched it with a pint of the ash-root ooze, hoping to ascertain whether he could depend upon it as a cure for his sons. Four hours after the drench had been given, to the astonishment of all, the animal got up and went quietly with the flock to graze. My brother and myself continued to take the medicine for 8 or 10 days, 1 gill 3 times daily. No effects of the dread poison were ever discovered on either of us. It has been used very successfully in snake bites, to my knowledge.

There is no doubt in the author's mind but what this gentleman has made a mistake in the kind of ash meant, as the upland ash is a white ash, from which flooring is made, having a thick, rough outside bark, whilst the black has a smooth bark, and grows in low, wet land, and is the same from which the flour-barrel hoop is extensively manufactured. It is the upland white ash that is to be used. It is known, as he says, to cure rattlesnake bites, and a gentleman of this place has tried it with success in rheumatism, boiled very strong and taken in half-gill doses. May vomit and purge if taken too freely Yet a moderate action, either up or down, will not be amiss. I have cured a case of rheumatism, in a boy twelve or fourteen years of age, with the above, since it came to my knowledge.

2. Saxon Remedy.—Gastell, a Saxon forester, now of the venerable age of eighty-two, unwilling to take to the grave with him a secret of so much importance, has made public in the *Leipsic Journal* the means which he has used fifty years, and wherewith he affirms he has rescued many human beings and cattle from the fearful death of hydrophobia.

Take immediately after the bite, warm vinegar or tepid water, wash the wound clean therewith, and dry it; then pour upon the wound a few drops of hydrochloric acid, because mineral acids destroy the poison of the saliva.

3. Grecian History.—Eat the green shoots of asparagus, raw; sleep and perspiration will be induced, and the disease can be thus cured in any stage of canine madness.

A writer in the *Providence Journal* says a man in Athens, Greece, was cured of hydrophobia by this remedy, even after the paroxysms had commenced.

4. Quaker Remedy.—Fifty Years Successful.—Jacob Ely, a good old honest Quaker merchant, of Lloydsville, O., gave me the following plan which his father had used since 1806 with success, to his knowledge, both on persons and domestic animals; and the New York *Tribune* has recently published something of the same character.

The dried root of elecampene, pulverize it and measure out 9 heaping table-spoons, and mix it with 2 or 3 tea-spoons of pulverized gum arabic; then divide into 9 equal portions. When a person is bitten by a rabid animal, take one of these portions and steep it in 1 pt. of new milk, until nearly half the quantity of milk is evaporated; then strain, and drink it in the morning, fasting for 4 or 5 hours after. The same dose is to be repeated 3 mornings in succession, then skip 3, and so on until the 9 doses are taken.

The patient must avoid getting wet, or the heat of the sun, and abstain from high seasoned diet, or hard exercise, and, if costive, take a dose of salts. The above quantity is for an adult—children will take less, according to age. The *Tribune's* publication is as follows:

5. Tribune's Cure for Hydrophobia.—The following was sent to the N. Y. *Tribune*, by J. W. Woolston, of Philadelphia:

"RECIPE.—First dose, 1 oz. of elecampane root, boiled in 1 pt. of milk until reduced to ½ pt. Second dose, (to be taken two days after the first,) 1½ ozs. of elecampane root boiled in 1 pt. of milk, same as the first. Third dose, same as the second, (to be taken two days after,) —in all, three doses.

If there is any virtue in the elecampane at all, the preference, of course, is to be given to the Quaker's plan, which gives nine instead of three doses. But it substantiates Mr. Ely's plan, as it comes from the place of his father's former residence. Consequently it would seem to strengthen confidence in the first.

6. Snake Bites.—In case of being bitten by any of the poisonous snakes, the best plan is to wash off the place *immediately*, then if the position of the wound is such that you can get the *mouth* to the spot, *suck* out all the poison in that way, or if any other person is present whose mouth is not sore, no danger need be apprehended.

For all the poison may be upon the outside, and washed off, yet most likely penetrates more or less into the wound, if a snake bite, as the arrangement of their teeth is such that the poison comes out *near* the point and when in the wound; thus you see the propriety of sucking it out. Or:

7. Spirits of ammonia, a small vial of it, can be carried in the pocket, and if bitten, sharpen a little piece of wood to a point, dipping this stick into the ammonia, and then penetrating the wound with it. A piece of lunar caustic can be carried in the pocket, and sharpened, if needed, and used the same as the stick and ammonia—and one of

the celebrated English farriers has reported that this caustic, used freely on the bite of the *mad dog*, destroys the poison, but to insure even a reasonable hope of success, it must be used *immediately*. This holds good in any of the sucking or caustic applications.

All persons working on or near marshes, or wherever the massasauger is known to inhabit, should always have one of these caustics with them.

8. But when a person is bitten in the absence of all these caustics, and not being able to reach the spot to suck out the poison, he must drink whisky enough to get as drunk as a fool, or his whole dependence must be upon the ash, asparagus, or elecampane.

The *National Intelligencer*, a year or two since, published a recipe for the cure of the rattlesnake bite, which it claimed was infallible, it having been tried in a number of cases, and always with success. It was nothing more nor less than the use of whisky as above recommended, and it is but justice to say that a daughter of Wm. Reed, of the town of Pittsfield, in this county, who was bitten on the arm some three years ago, was cured by drinking whisky until drunkenness and stupor were produced, and she has never felt any inconvenience from the bite since, which goes to show that the bite of the *Devil's tea* is worse than the bite of a rattlesnake.

9. I know an old physician who was called to a boy bitten by a rattlesnake, and in the absence of all other remedies, he cured him upon the principle that "The hair of the dog will cure his bite," taking a piece of the snake about two inches long, splitting it on the back, and binding it upon the bite. It cleansed the wound very white, and no bad effects were seen from it.

10. Saleratus, moistened and bound upon the bite; then dissolve more, and keep the parts wet with it for a few hours, cured many massasauger bites, as also bee-stings.

11. Snake-Bitten Cattle.—Remedy.—Cattle or horses are usually bitten in the feet. When this is the case, all that is necessary to do is to drive them into a mud-hole and to keep them there for a few hours. If upon the nose, bind the mud upon the place in such a manner as not to interfere with their breathing. And I am perfectly satisfied that soft clay mud would be an excellent application to snake bites on persons, for I know it to draw out the poisoning from ivy, and have been assured that it has done the same for snake bites, of persons as well as cattle.

EYE PREPARATIONS.—Eye Water.—Table salt and white vitriol, of each, 1 table-spoon; heat them upon copper or earthen until dry; the heating drives off the acrid or biting water, called the water of crystallization, making them much milder in their action; now add them to soft water, ½ pt.; putting in white sugar, 1 table-spoon; blue vitriol, a piece the size of a common pea. If it should prove too strong in any case, add a little more soft water to a vial of it. Apply it to the eyes 3 or 4 times daily.

If the eyes are *very* sore, or if the soreness has been of *long* standing, take the "Alterative Syrup," or the "Cathartic Alterative," continuing them for several weeks, according to the necessities of the case. I find it an excellent plan, in using any preparation for sore or weak eyes, to apply it again about twenty minutes from the first application. More than double speed is made by this repetition. For inflammation of any part of the body, apply this by wetting cloths. Even for sores about the ears and groins of babes, reduce it, and three or four applications will cure them. I have also found it valuable for horses, as a wash; when they get the eye injured by straws, or otherwise, which causes the eye to water, or matterate, using it freely.

The use of this eye water enabled me to lay by the spectacles after four years' wearing, and I have since studied medicine and graduated as a physician, without resorting again to their use, by the occasional application of the eye water. But I need not have resorted to the use of the eye water again, had I not done in study, as I do in all things else, that is, when I have anything to do, I do it with all my might. I read steadily, day by day, sixteen hours—more than five other students read altogether, who roomed at the same house. Yet this counted in the end; for when the class began to inquire and look around, near the end of the term, for one to deliver the *Valedictory*, on their behalf, which is the custom in the Eclectic Medical Institute, I received that, the first honor of the class. I do not mention this to boast, by no means, but to show the necessity, as well as the advantages, of hard study, especially to those who begin their studies late in life, and are obliged to pay their way with their own hands, and support a family also. This was my case exactly. In the commencement of my medical studies, I worked all day, reading half of the night, copying off the *Latin terms*, with their significations, on a slip of paper, which I carried in my pocket during the next day, looking at two or three of the terms at a time, through the day, until all were committed. And thus I accomplished no more than what any other man may do, if he goes at it with a will, and does as I did; and that some one may be stimulated to this course is the only object of the recital. See "Advice to Young Men."

2. Dr. Raymond, of Grass Lake, Mich., who obtained the above prescription of me, adds to each ounce of water used, one grain of morphine, and he tells me he has great success with it; the addition of the morphine making it nearly resemble the celebrated prescription used by the English surgeons in India, which is as follows:

3. Indian Prescription for Sore Eyes.—Sulphate of zinc, 2 grs.; tincture of opium (laudanum), 1 dr.; rose water, 2 ozs.; mix. Put a drop or two in the eye 2 or 3 times daily.

4. An eye doctor, of Xenia, O., makes a great use of the following:-

Sulphate of zinc, acetate of lead, and rock salt, of each, ½ oz., loaf sugar, 1 oz.; soft water, 12 ozs.; mix without heat, and use as other eye waters.

6. Dr. Cook, of Ashtabula, Ohio, makes and sells large quantities under the head of "Cook's Eye Water." It is as follows:

Sulphate of zinc, 1 oz.; sugar of lead, ½ oz.; precipitated carbonate of iron, ½ oz.; salt, and sugar, of each, 1 table-spoon; the whites of two eggs; soft water, 32 ozs.; mix the whites of the eggs, zinc, salt, lead, sugar and iron well together, then add the water.

6. For Excessive Inflammation of the Eyes.—Poultice by boiling a handful of hops in water, putting in from ½ to 1 dr. of opium while boiling; when still warm, lay the hops over the eyes and keep them wet with the water in which they were boiled.

A lady who had been blistered and starved, according to the old plan in this disease, was soon cured by this poulticing and washing the eyes often with the hop water containing the opium, with generous diet, etc., contrary to the expectation of friends, and the prediction of enemies, to the plan.

7. If sore eyes shed much water, put a little of the oxide of zinc into a vial of water, and use it rather freely—it will soon cure the difficulty.

8. Copperas and water has cured sore eyes of long standing, and used quite strong, it makes an excellent application in erysipelas.

9. Garden Rhubarb.—The juice of the root applied to the eye has cured bad cases.

10. Boil an egg, remove the yolk, and have ready equal parts of sulphate of zinc and loaf sugar, pulverized; fill the place occupied by the yolk, and squeeze out the oil through a linen cloth, while hot, and apply as needed. If too strong, add a little rain water.

I sold a book to a Mrs. Johnson, in Wayne county, Mich., who had used this preparation very successfully for several years, and had I not have already had it in my book, I could not have purchased it of her for less than five dollars, and she regretted very much that I was taking from her a source of profit by selling the books in her neighborhood containing the recipe.

11. Sailor's Eye Preparation.—Burn alum, and mix it with the white of eggs, and put between two cloths, and lay it upon the eyes; taking salts and cream-of-tartar, equal parts, to cleanse the blood.

This was given to me, and very highly recommended, by an old Scotch sailor, with whom I have had much enjoyment, talking over the sufferings of the sea, he having used it many times in places where nothing else could be obtained.

12. Father Pinkney's Preparation for Very Bad Sore Eyes.—Castile soap, scraped fine, and half the quantity of very finely pulverized chalk; wet them up to a paste with strong juice of tobacco; when desired to apply to the eye, drop two or three drops of brandy into the box of paste; then take out a bit of it where the brandy was dropped, equal in size to the fourth of a grain of wheat, to the diseased eye; wet it on a bit of glass, and put it into the eye with a camel's hair pencil.

Apply it twice daily at first, and from that to only once in two days, for from one to two weeks, will, and has cured wretchedly bad cases, so says old Father Pinkney, of Wayne county, Michigan, who has used it over fifty years, he being over ninety years of age. His only object in giving it an insertion here is to do good to his fellow creatures; and also for animals, it being equally applicable to horses or cattle.

13. Indian Eye Water.—Soft water, 1 pt.; gum arabic, 1 oz.; white vitriol, 1 oz.; fine salt, ½ tea-spoon; put all into a bottle and shake until dissolved. Put into the eye just as you retire to bed.

I paid Mrs. Pinny, south of Ypsilanti, Mich., fifty cents for this prescription. She would not, however, let her own family know its composition. Her husband had removed films from horses' eyes with it, and cured Mr. Chidister, a merchant of Ypsilanti, by only two applications, as the saying is, after he had "tried everything else." It came from an old Indian, but my knowledge of the articles would lead me to say for common, at least, it would require to be reduced one-half.

14. Tobacco Eye Water.—Fine cut tobacco the size of a common hickory nut; sugar of lead equal in bulk; rain water, 2 ozs.; opium the size of a pea. Reduce it with more water if necessary.

15. Verdigris and Honey, have cured inflamed eyes, by using just sufficient verdigris to color the water a grass color, then making it one-third honey. It is also said to prevent scars by using upon burns.

16. Raw Potato Poultice, for inflamed eyes, is one of the very best applications in recent cases, scraping fine and applying frequently.

17. Slippery-Elm Poultices, are also an excellent application, used as above.

18. Films—To Remove from the Eye.—Wintergreen leaf, bruised, and stewed in a suitable quantity of hens' oil to make the oil strong of the wintergreen—strain and apply twice daily.

The above cured a boy of this city, and I am satisfied that the hens' oil has cured recent cases, without the wintergreen; but with it, it has cured beasts also. For cases of a year or two's standing, however, it is best to use the following:

19. Lime water, 1 pt.; finely pulverized verdigris, ½ oz.; set on embers for 1 hour; then strain and bottle tight. Touch the film over the pupil, or on the speck, 2 or 3 times daily, by putting the point of a camel's hair pencil into the preparation, then to the eye, holding away the lids for a short time by placing the thumb and finger upon them for that purpose.

It will be found necessary to persevere for two or three months with this application, and also to use one of the "Alteratives," to cleanse the blood. This course, pursued for three months, gave sight to a young lady who had not seen light for two years, which doctors could not do, nor were willing for others to do.

20. Eye Salve.—Take white precipitate, 1 tea-spoon, and rub it

into a salve with 3 tea-spoons of fresh lard, and applied upon the outside of the lid of the worst chronic (long continued) sore eyes, has cured them when they were so bad that even the eyelashes (cilia) had fallen out, from the disease.

A physician was cured with this eye salve when he could not cure himself. If red precipitate will cure the itch, why should not the white cure disease of the eye?

21. Sore Eyes—To Remove the Granulations.—Crystalized nitrate of silver, 2 grs.; morphia, 1 gr.; blue vitriol, 1 gr.; salammoniac, 1 gr.; pulverize each one separately, and mix. Apply once daily, by putting a small bit of the mixture upon a piece of glass, moistening it with a little water, and putting into the eye by means of a small camel's hair pencil.

22. Another Method.—Is to take a stick of tag-alder about 2 feet long, boring a hole nearly through the middle of the stick, crosswise, filling it with salt, and plugging it up; then put one end into the fire and char it nearly to the salt, then the other end the same way; and finally pulverizing and applying the salt, the same as the above, once daily only.

In either case, after the granulations (little lumps) are removed from the eye, or eyes, finish the cure by using any of the foregoing eye waters which you may choose; all the time using some of the alteratives for cleansing the blood.

FEVER SORES.—PLASTER, SALVES, Etc.—Black Salve.—Sweet oil, linseed oil, and red lead pulverized, of each 1 oz., (or in these proportions). Put all into an iron dish over a moderate fire, stirring constantly, until you can draw your finger over a drop of it on a board when a little cool, without sticking. Spread on cloth, and apply as other salves.

My brother, J. M. Chase, of Caneadea, N. Y., says he has used this salve about fifteen years, and knows it to be one of the best in the world for all kinds of old sores, as ulcers, fever sores, and all inflamed parts, cleaning and taking out redness or inflammation, causing a white, healthy appearance in a short time, and a certain preventive of mortification, etc., etc., as well as to prevent soreness in more recent cuts and bruises, also; and from my own knowledge of a salve which is very similar, I have introduced it into this work, feeling assured that whoever may have occasion to try it, will not regret the space it occupies, especially after reading the following: A gentleman said to me during the past summer, "I will give you one of the most valuable salves in the world, for I cured a man's hand with it, which was so swollen that it looked more like a ham than a hand; and two doctors said it must be cut off; also ulcerated." When he told me how it was made, I opened my book to the above salve, which was precisely the same as the one he used.

2. Red Salve.—Some prefer to prepare the salve as follows:

Red lead, 1 lb.; bees-wax and resin, of each, 2 ozs.; linseed and sweet oils, of each, 3 table-spoons; spirits of turpentine, 1 tea-spoon,

melt all, except the first and last, together, then stir in the lead and stir until cool, adding the turpentine.

Used upon fever, and all other sores of an inflammatory character; at the same time taking the following pill to purify the blood:

3. Mandrake root, dried and pulverized, ½ oz.; blood-root, in the same way, ¼ oz.; form into pills with extract of dandelion. DOSE.—Three pills may be taken at bed time, for 2 or 3 days, then add another pill, and at the end of a week take any cathartic you choose; then take: Iodide of potash, 10 grs., and put it into a vial with 1 oz. of water, and take 20 to 30 drops of it in a little more water, instead of the mandrake pill, for 3 or 4 days, then that pill again, as at first.

By the time you have gone around three or four times, the blood will be pretty thoroughly cleansed—do not be afraid of the mandrake pill, as it will not act as a cathartic, but simply work upon the blood—if it does, reduce the number. You will be pleased with this method of purification.

4. Indian Cure.—G. A. Patterson, of Ashtabula, Ohio, was cured by an Indian physician, in Cleveland, of one of the worst fever sores almost ever known. The muscles of his leg were so contracted that no use could be made of his leg in getting about. Four months, and the following treatment, did the work:

A syrup of Wahoo (Euonymus Atropurpureus)—and here let me say that the Wahoo is the great Indian remedy for purifying the blood—was made by boiling very strong, then molasses and rum added to make it palatable and keep it from souring; this was used sufficient to keep the bowels solvent, sometimes chewing the bark of the root from which the syrup is made, preferring it a part of the time to the syrup. The sore was dressed with the following salve: Resin, 1 lb.; mutton tallow, 1 lb.; bees-wax, 1 lb.; linseed oil, 1 pt.; ambrosial (highly flavored) soap, 1½ ozs.; to make it, mix in an iron kettle and simmer 2 hours, stirring all the time. Spread on cloth, and apply as needed. The contracted muscles were anointed with skunk's oil only.

Mr. Patterson also extols it very highly for all common purposes. And as I have a few other recipes for fever sores which have been so highly recommended by those who have used them, I cannot omit their insertion, and I would especially recommend the next one following, called:

5. Kitridge's Salve.—Bitter-sweet and sweet elder roots, of each 1½ lbs.; hop vines and leaves, and garden plantain, top and root, of each, ½ lb.; tobacco, 1 three cent plug. Boil all in rain water to get out the strength; then put the herbs in a thick cloth and press out the juice, and boil down carefully to ½ pt.; then add unsalted butter, 1 lb.; bees-wax and resin, of each, 1 oz., and simmer over a slow fire until the water is all out.

I obtained the above from S. B. Newton, a farmer doctor near Mooreville, Michigan, who had cured fever sores, with it, of thirty-five years' standing; used it also on swellings in every case, once upon a boy who had an eye kicked out and swelled very bad; he keeps it in

his stable all the time for wounds of horses and cattle, in castrating, etc., etc. I know it must be a very valuable salve.

6. Fever Sore Poultice.—Sassafras, bark of the root, dried and pulverized very fine; make a bread and milk poultice quite thin, and stir in of the above powder to make it of proper consistence, applying 3 times in the 24 hours for 3 weeks; then heal with a salve made by thickening honey to a salve with wheat flour.

If there are loose bones, it will be quite sore while they are working out, but persevere. A case was cured by it of twelve years' standing; the same man cured eight other cases, never having a failure, and it has proved successful on an abscess of the loins also.

7. Yeast Poultice.—Fresh yeast, the thick part, thickened with flour and applied to fever sores, has proved very valuable, continuing it for several weeks, touching any point, which does not heal readily, with finely pulverized verdigris rubbed up with a little lard; then putting the poultice directly over the whole again.

This heals, leaving the parts white and natural, instead of dark, as I have seen many cases which had been cured.

8. Salve for Fever Sores, Abscesses, Broken Breasts, Etc.—Thoroughly steep tobacco, ½ oz, in soft water, 1 pt., straining out from the tobacco and boiling down to 1 gill; then have melted lard, resin, and bees-wax, of each, ½ oz., simmering to a thick salve, then stirring in 1 gill of old rum, and if necessary, continuing the simmering a little longer. To be used as other salves.

9. Ointment.—Sweet clover (grown in gardens), stewed in lard, then add bees wax and white pine turpentine, equal parts, to form an ointment, is highly recommended.

10. Salve for Fever Sores, Cuts, Etc.—Spirits of turpentine and honey, of each, ½ pt., simmered over a slow fire until they unite by stirring; then set aside to cool until you can put in the yolk of an egg without its being cooked by the heat; stir it in and return it to the fire, adding camphor gum, ¼ oz., simmer and stir until well mixed.

By putting in the egg when cool, it combines with the other, but if put in while the salve is hot, it cooks, but does not combine. This is very highly recommended, as above indicated.

11. William Howell, a farmer living about six miles from Jackson, Michigan, says he had a fever sore on his shin for twenty years, sometimes laying him up for months, and at one time preparations were made to cut off the limb, but an old man, in New Jersey, told him to:

Scrape a fresh turnip and apply it every 4 hours, night and day, until healed, which cured him.

And he feels assured, from using it in other cases, that all will be pleased with it who have any occasion for its use. Apply it oftener if it becomes too offensive.

SALVES.—Green Mountain Salve.—Resin, 5 lbs.; Burgundy pitch, bees-wax, and mutton tallow, of each, ¼ lb.; oil of hemlock, balsam of fir, oil of origanum, oil of red cedar, and Venice turpentine, of each, 1 oz.; oil of wormwood, ½ oz.; verdigris, very finely pulverized, 1 oz.; melt the first articles together and add the oils, having rubbed the verdigris up with a little of the oils, and put it in with the

three articles, stirring well; then pour into cold water and work as wax until cool enough to roll.

This salve has no equal for rheumatic pains, or weakness in the side, back, shoulders, or any place where pain may locate itself. Where the skin is broken, as in ulcers, and bruises, I use it without the verdigris, making a white salve, even superior to "Peleg White's Old Salve." It is valuable in Dyspepsia, to put a plaster of the green salve over the stomach, and wear it as long as it will stay on, upon the back also, or any place where pain or weakness may locate. In cuts, bruises, abrasions, etc, spread the white salve upon cloth and apply it as a sticking plaster until well; for rheumatism or weakness, spread the green salve upon soft leather and apply, letting it remain on as long as it will stay. For corns, spread the green salve upon cloth and put upon the corn, letting it remain until cured. It has cured them.

A gentleman near Lancaster, Ohio, obtained one of my books having this recipe in it, and one year afterwards he told me he had sold over four thousand rolls of the salve, curing an old lady of rheumatism in six weeks, who had been confined to her bed for seven weeks, covering all the large joints with the salve, without other treatment. For rolling out salves, see the cut on page 142.

2. Conklin's Celebrated Salve.—Resin, 4 lbs.; bees-wax, Burgundy pitch, white pine turpentine, and mutton tallow, each, ¼ lb.; camphor gum and balsam of fir, of each, ¼ oz.; sweet oil, ½ oz.; and alcohol, ½ pt. Melt, mix, roll out, and use as other salves. Wonders have been done with it.

3. Balm of Gilead Salve.—Mutton tallow, ½ lb.; balm of gilead buds, 2 ozs.; white pine gum, 1 oz.; red precipitate, ½ oz.; hard soap, ½ oz.; white sugar, 1 table-spoon. Stew the buds in the tallow until the strength is obtained, and press out or strain, scrape the soap and add it with the other articles to the tallow, using sufficient unsalted butter or sweet oil to bring it to a proper consistence to spread easily upon cloth. When nearly cool, stir in the red precipitate, mixing thoroughly.

This may be more appropriately called an ointment. It is used for cuts, scalds, bruises, etc., and for burns, by spreading very thin—if sores get proud flesh in them, sprinkle a little burned alum on the salve before applying it. It has been in use in this country about forty years, with the greatest success.

4. Adhesive Plaster, or Salve, for Deep Wounds, Cuts, etc., in Place of Stitches.—White resin, 7 ozs.; bees-wax and mutton tallow, of each, ½ oz.; melt all together, then pour into cold water and work as wax until thoroughly mixed, then roll out into suitable sticks for use.

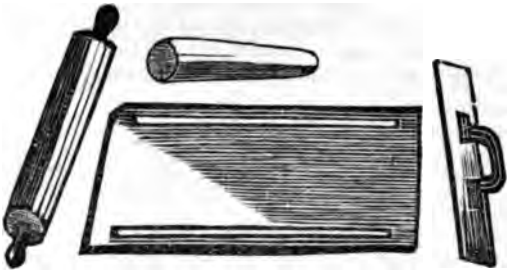
It may be spread upon firm cloth and cut into narrow strips. In case of deep wounds, or cuts, it will be found to firmly hold them together, by first pressing one end of a strip upon one side of the wound until it adheres, then draw the edges of the wound closely together, and press down the other end of the strip until it adheres

also. The strips should reach three or four inches upon each side of the cut, and run in different directions across each other, to draw every part of the wound firmly in contact. It will crack easily after being spread until applied to the warm flesh, yet if made any softer it can not be depended upon for any length of time, but as it is, it has been worn as a strengthening plaster, and remained on over a year.

5. Peleg White's Old Salve.—This formerly celebrated salve was composed of only three very simple articles. Our "Green Mountain Salve" is far ahead of it, yet for the satisfaction of its old friends I give you its composition:

Resin, 3 lbs.; mutton tallow and bees-wax, of each, ½ lb.; melted together and poured into cold water, then pulled, and worked as shoemakers' wax.

It was recommended for old sores, cuts, rheumatic plasters, etc., etc.



Apparatus for Making Salves and Lozenges.

The above cut represents a board prepared with strips upon it of the desired thickness for the diameter of the rolls of salve, also a piece of board with a handle, with which to roll the salve when properly cooled for that purpose. The salve is laid between the strips, which are generally one inch thick, then, with the handle piece, roll it until that board comes down upon the strips, which makes the rolls all of one size; use a little tallow to prevent sticking to the boards or hands; then cut off the desired length, and put a label upon them, to prevent them sticking to each other.

A roller and tin cutter are also represented in the same cut, with which, and another board, having thin strips upon it to correspond with thickness of lozenges required, you can roll the mass down until the roller touches the strips; and thus you can get them, as well as the salve, of uniform thickness; then cut out with the cutter, laying them upon paper until dry.

VERMIFUGES.—Santonin Lozenges.—Santonin, 60 grs.; pulverized sugar, 5 ozs.; mucilage of gum tragacanth sufficient to make into a thick paste, worked carefully together, that the santonin shall be evenly mixed throughout the whole mass, then if not in too great a

hurry, cover up the mortar in which you have rubbed them, and let stand from 12 to 24 hours to temper; at which time they will roll out better than if done immediately; divide into 120 lozenges. See apparatus, on preceding page, for rolling and cutting out. DOSE.—For a child 1 year old, 1 lozenge, night and morning; of 2 years, 2 lozenges; of 4 years, 3; of 8 years, 4; of 10 years or more, 5 to 7 lozenges; in all cases to be taken twice daily, and continuing until the worms start on a voyage of discovery.

A gentleman came into the drug store one morning, with the remark, "Do you know what your lozenges have been doing?" As though they had killed some one, the answer was, no, is there anything wrong; he held up both hands together, scoop shovel style, saying, "They fetched away the worms by the double handful." It is needless to attempt to give the symptoms by which the presence of worms might be distinguished; for the symptoms of nearly every other disease is, sometimes, manifested by their presence. But if the belly be quite hard and unusually large, with a peculiar and disagreeable breath in the morning, foul or furred tongue, upper lip swollen, itching of the nose and anus, milky white urine, bowels sometimes obstinately costive, then as obstinately loose, with a craving appetite, then loathing food at times; rest assured that worm medicine will not be amiss, whether the person be child or adult. It would be well to take a mild cathartic after four to six days use of the lozenges, unless the worms have passed off sufficiently free before that time, to show their general destruction. Very high praise has also been given to the following:

2. Vermifuge Oil—Prof. Freeman's.—In the May number of the *Eclectic Medical Journal* of Cincinnati, Ohio, I find so valuable a vermifuge from Prof. Z. Freeman, that I must be excused for its insertion, as the articles can always be obtained, whilst in some places you might not be able to get the santonin called for in the lozenges. His remarks following the recipe will make all needed explanations, and give confidence in the treatment.

The explanations in brackets are my own, according to the custom through the whole work.

"Take oil of chenopodii, ½ oz. (oil of worm-seed,); oil of terebinth, 2 drs. (oil of turpentine,); oil of ricini, 1½ ozs. (castor oil,); fluid extract of spigelia, ½ oz. (pink,); hydrastin, 10 grs.; syrup of menth. pip., ½ oz. (syrup of peppermint.) DOSE.—To a child of 10 years of age, a tea-spoon 3 times a day, 1 hour before each meal; if it purges too freely, give it less often.

"This is an excellent vermifuge, tonic, and cathartic, and has never failed (as well as I can judge,) to eradicate worms, if any were present, when administered for that purpose. I have given no other vermifuge for the last five years, and often one tea-spoon has brought away from three to twenty of the lumbrica. Only a few days ago I prescribed one fluid drachm of it, (about one tea-spoon,) and caused

the expulsion of sixty lumbricoids, and one fluid drachm, taking a few days afterwards, by the same child, brought away forty more, some of them six inches in length. Where no worms are present, it answers the purpose of a tonic, correcting the condition of the mucus membrane of the stomach and bowels, improving the appetite and digestion, and operating as a mild cathartic."

3. Worm Tea.—Carolina pink-root, senna leaf, manna, and American worm-seed, of each, ½ oz.; bruise and pour on boiling water, 1 pt., and steep without boiling. Sweeten well, add half as much milk. DOSE.—A child of five years, may take 1 gill 3 times daily, before meals, or sufficient to move the bowels rather freely.

If this does not carry off any worms, wait one day and repeat the operation; but if the bowels do not move by the first day's work, increase the dose and continue to give it until that end is attained before stopping the medicine. This plan will be found an improvement upon the old where the lozenges or oil cannot be obtained, as above.

4. Worm Cake.—English Remedy.—Wheat flour and jalap, of each, ½ lb.; calomel, grain-tin, and ginger, of each, 1 oz. Mix thoroughly and wet up as dough, to a proper consistence to roll out; then roll out as lozenge cakes, to three-sixteenths of an inch in thickness; then cut out ¾ inch square and dry them. DOSE.—For a child from 1 to 2 years, ¾ of a cake; 4 to 5 years, 1 cake; from 5 to 7 years, 1¼ cakes; from 7 to 10, 1½; from 10 to 12, 1¾; from 12 to 14, 2; from 14 to 17, 2¼; from 17 to 20 years, and all above that age, 2½ cakes, but all men above that age, 3 cakes.

"Children may eat them, or they can be shaved off very fine and mixed in a little treacle, honey or preserves. If after taking the first dose they do not work as you desire, increase the dose a little. The patient to take the medicine twice a week—Sundays and Wednesdays To be taken in the morning, fasting, and to be worked off with a little warm tea, water gruel, or warm broth. N. B.—Milk must not be used in working them off, and be careful of catching cold.—*Snodin, Printer, Oakham, Eng.*"

I obtained the above of an English family who prized it very highly as a cathartic for common purposes, as well as for worms. And all who are willing to take *calomel*, I have no doubt will be pleased with its operations.

TAPE WORM.—Simple, but Effectual Remedy.—This, very annoying and distressing, worm has been removed by taking two ounce doses of common pumpkin-seeds, pulverized, and repeated every four or five hours, for four or five days, spirits of turpentine, also in doses of one-half to two ounces, with castor oil, have proved very effectual. the root of the male fern, valerian, bark of the pomegranate root, etc., have been used with success. But my chief object in speaking upon this subject, is to give the successes of Drs. Beach, of New York, and Dowler, of Beardstown, Ill., from their singularity and perfect eradication of the worm, in both cases: The first is from "Beach's Ameri-

can Practice, and Family Physician," a large work, of three volumes, costing Twenty Dollars, consequently not generally circulated; whilst the latter is taken from the "Eclectic Medical and College Journal," of Cincinnati, and therefore only taken by physicians of that school. The last was first published by the "New Orleans Medical and Surgical Journal." First then, Dr. Beach says:

"The symptoms of a tape-worm, as related to me by Miss Dumouline, who had suffered with it for twenty-five years, are in substance as follows: It commenced at the age of ten, and afflicted her to the age of thirty-five. The worm often made her distressingly sick at the stomach; she would sometimes vomit blood and be taken suddenly ill, and occasionally while walking. It caused symptoms of many other diseases, great wasting of the flesh, etc. Her appetite was very capricious, being at times good, and then poor for months, during which time her symptoms were much aggravated; sickness, vomiting, great pain in the chest, stomach and side, motion in the stomach, and also in the bowels, with pain, a sense of fullness or swelling, and beating or throbbing in the same, dizziness, heaviness of the eyes:—and she was altogether so miserable that she feared it would destroy her. When she laced or wore anything tight, it produced great distress. The worm appeared to rise up in her throat and sicken her. Her general health was very bad. At intervals, generally some time after taking medicine, pieces of the worm would pass from the bowels,—often as many as forty during the day, all alive, and would swim in water.

"TREATMENT.—Miss Dumouline stated that she had employed twenty physicians, at different periods, and taken a hundred different kinds of medicine without expelling the worm. She had taken spirits of turpentine, but could not retain it upon the stomach. Under these circumstances I commenced my treatment. Cowage stripped from the pod, a small tea-spoon three times a day, to be taken, fasting, in a little arrow-root jelly; then occasionally a purgative of mandrake. In connection with this, I directed her to eat freely of garlic, and common fine salt. I gave these under the belief that each article possessed vermifuge properties, without ever having administered them for the tape-worm. After having taken them for some time, all her unfavorable symptoms ceased, and subsequently the remaining portion of the worm passed lifeless from her—an unprecedented circumstance.

"She immediately recovered, and has since retained her health, and there is no evidence that there is any remaining. The patient stated that the worm which passed from her during the time she was afflicted with it, would fill a peck measure, and reach one mile in length. Her relief and gratitude may be better imagined than described. I have a portion of this worm in my possession. When once the tape-worm begins to pass the bowels, care must be taken not to break it off, for it will then grow again—it has this peculiar property."

2. Secondly, Dr. Dowler says: "The subject of this notice is a

daughter of Mr. E. Fish, of Beardstown, Illinois, about six years old The only point of special interest in the case consists in the efficiency of the remedy—to me wholly new, and accidentally brought to my notice—which was used in its treatment.

"I was treating a brother of this patient; a part of my prescription for whom was, as a drink, the mucilage of elm bark, made by putting pieces of the solid bark into water. The girl was seen to be frequently eating portions of the bark during the day; the next morning after which, upon my visiting the boy, the mother, with much anxiety, showed me a vessel containing something that had that morning passed the girl's bowels, with bits of the elm bark, enveloped in mucilage, which, upon examination, proved to be about three feet of tape-worm. As I supposed the passage of the worm was accidental, and had occurred from the looseness caused by the bark, I proceeded to prescribe what I supposed a much more potent anthelmintic, a large dose of turpentine and castor oil. The turpentine and oil were given several times during the three consecutive days, causing pretty active purging, but with no appearance of any portions of the worm. The girl being slender, and of irritable temperament, I was forced to desist from further active medications; and partly to allay irritation of the bowels, and partly to test the influence of the bark on the worm, I directed that she should resume the use of the bark as before, by chewing and swallowing in moderate quantities.

"On visiting her the succeeding morning, I was shown portions of the worm, mostly in separate joints, that had been passed over night. Feeling now some confidence in the *anthelmintic* powers of the elm bark, I directed the continued use of it, in the solid form as before, while there should be any portions of worm passing. In my daily calls for some days, I had the satisfaction to learn that portions of the worm continued to pass, from day to day, and sometimes several times a day.

"I now ceased to visit my little patient, intending only an occasional visit; but my confidence in the efficacy of the *elm bark* being so well established, I advised its use to be continued for even two or three days after any portions of the worm should be seen in the evacuations. The portions of the worm expelled—even the separate joints—were alive, showing more or less motion; a sense of their presence in the rectum, from their action, seemed to urge the patient to go to stool for their removal.

"Having given direction for the links or joints to be counted, care was taken to do so, by the mother; and from my notes of the case, I find that during about seven weeks of the intervening time, there had been expelled, by estimate, (taking the average lengths of the joints,) about *forty-five feet* of worm. At this time there had been no portions of the worm passed for two weeks, during which time the use of

the bark had been omitted. The head of the worm, with about fifteen inches of the body attached, had been expelled! But thinking that all portions of the worm or worms might not have been removed, I advised that the patient should resume the use of the bark. Very soon the next day, after doing so, further portions commenced coming away, among them one about *six feet* long, tapering to a thread-like termination.

"The next time I took notes of the case, my estimate of the entire length of the worm that had been expelled, footed up *one hundred and thirty-five feet*, whether one or more worms, I am unable to say, as in the portions I saw there were a head and tail, of what I supposed one worm. Since the last estimate there have been joints occasionally evacuated.

"This patient, when first treated, was thin in flesh—had been growing so for some two years—attended with the usual nervous symptoms, starting out of sleep, variable appetite, etc., but with no great departure from good health.

"As to the influence of this very bland agent in the dislodgment of the tape-worm, in this case, I think there can be no doubt, whatever may be the *theory* of its action.

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"The passage of portions of the worm, so promptly, on the use of the bark, and the ceasing to do so on the discontinuance of its use—even while active purgative anthelmintics were used—leave no room to doubt its effectiveness in at least this case, as a worm-expelling agent.

"It seems probable that the bark, with its thick mucilage, so interposes between the animal and the inner surface of the bowels, as to prevent its lateral grasp on their surface, in consequence of which it is compelled to yield to the forces naturally operating, and it is carried out with the discharges. But as my object was simply to state the *practical facts* in this case, I will offer no further reflections."

COUGHS.—Cough Lozenges.—Powdered ipecacuanha, 25 grs.; kermes mineral, 50 grs.; sulphate of morphia, 8 grs.; powdered white sugar, gum arabic, and extract of licorice, of each 1½ ozs.; oil of anise, 0 drops; syrup of tolu, sufficient to work into mass form; roll out, and cut into 160 lozenges. DOSE.—One lozenge 3 times daily.—*Parish's Pharmacy.*

The above is the prescription of the "regulars," but there are those, perhaps, who would prefer the more rational prescription of the "irregulars," next following; and there are those who would prefer the "Cough Candy," in place of either of the lozenges. By the insertion of the variety, all can please themselves.

2. Cough Lozenges.—Another valuable lozenge is made as follows:

Extract of blood-root, licorice, and black cohosh, of each ¼ oz.; tinctures of ipecac and lobelia, with laudanum, of each ¼ oz.; cayenne,

powdered, 10 grs; pulverized gum arabic and starch, of each ¾ oz.; mix all together, and add pulverized sugar, 3 ozs. If this should be too dry to roll into lozenges, add a thick solution of gum arabic to give it that consistence; and if it should be yet too moist, at any time, add more sugar. Divide into 320 lozenges. DOSE.—One, 3 to 6 times daily, as needed.

3. Pulmonic Wafers.—Pulverized sugar, 7 ozs.; tincture of ipecac, 3 drs.; tincture of blood-root and syrup of tolu, of each 2 drs.; tincture of thoroughwort, ½ oz.; morphine, 1¼ grs. Dissolve the morphine in water, ¼ tea-spoon, having put in sulphuric acid 2 drops; now mix all, and add mucilage of comfrey-root or gum arabic, to form a suitable paste to roll and cut into common sized wafers or lozenges. DIRECTIONS.—Allow 1 to dissolve in the mouth for a dose, or dissolve 6 in 3 table-spoons of warm water, and take ½ of a spoon 6 times daily, or oftener if need be.

4. Coughs from Recent Colds.—Remedy.—Linseed-oil, honey, and Jamaica rum, equal parts of each; to be shaken when used.

This has given very general satisfaction in recent coughs, but the following will probably give the most general satisfaction:

5. Cough Mixture for Recent Colds.—Tincture of blood-root, syrups of ipecac and squills, tincture of balsam of tolu, and paregoric, equal parts of each. DOSE.—Half of a tea-spoon whenever the cough is severe. It is a very valuable medicine.

6. Cough Candy.—Tincture of squills, 2 ozs.; camphorated tincture of opium, and tincture of tolu, of each, ¼ oz.; wine of ipecac, ½ oz; oils of gaultheria, 4 drops, sassafras, 8 drops, and of anise-seed oil, 2 drops. The above mixture is to be put into 5 lbs. of candy which is just ready to take from the fire, continuing the boiling a little longer, so as to form into sticks.—*Parish's Pharmacy.*

Druggists will get confectioners to make this for a trifle on the pound over common candies, they, of course, furnishing their own compound.

7. Cough Syrup.—Wahoo, bark of the root, and elecampane root, of each, 2 ozs.; spikenard root, and tamarack bark, (unrossed, but the moss may be brushed off,) of each 4 ozs.; mandrake root, ½ oz.; blood-root, ¼ oz.; mix alcohol, 1 pt., with sufficient water to cover all, handsomely, and let stand 2 or 3 days; then pour off 1 qt., putting on water and boiling twice, straining the two waters and boiling down to 3 pts; when cool add 3 lbs. of honey, and alcoholic fluid poured off, with tincture of wine of ipecac, 1½ ozs.; if the cough should be very tight, double the ipecac; and wash the feet daily in warm water, rubbing them thoroughly with a coarse towel, and, twice a week, extending the washing and rubbing to the whole body. DOSE.—One table-spoon 3 to 5 times daily.

If the cough is very troublesome when you lie down at night, or on waking in the morning, put tar and spirits of nitre, of each one tea-spoon, into a four-ounce vial of water, shaking well; then at these times just sip about a tea-spoon from the bottle without shaking, which will allay the tickling sensation causing the cough.

I have cured a young lady, during the past winter, with the above syrup, whose cough had been pretty constant for over two years. Her friends hardly expected it ever to be any better, but it was only

necessary to make the above amount of syrup twice to perform the cure.

8. **Cough Tincture.**— Tinctures of blood-root and balsam of tolu, of each, 4 ozs.; tinctures of lobelia and digitalis, of each, 2 ozs.; tincture of opium (laudanum), 1 oz.; tincture of oil of anise (oil of anise one-half tea-spoon in an ounce of alcohol), 1 oz. Mix. Dose.— About one-half tea-spoon 3 times daily, in the same amount of honey, increasing to a tea-spoon if needed to loosen and lessen the cough.

It has raised cases which doctors said must die, causing the patient to raise matter resembling the death-smell, awful indeed. It will cure cough, not by stopping it, but by loosening it, assisting the lungs and throat to throw off the offending matter, which causes the cough, and thus *scientifically*, making the cure perfect; while most of the cough remedies kept for sale stop the cough by their anodyne and constringing effects, retaining the mucus and all offending matters in the blood, causing *permanent* disease of the lungs.

But notwithstanding the known value of this "Cough Tincture," where the tamarack and other ingredients can be obtained, I must give my preference to the "Cough Syrup," No. 7.

9. **Cough Pill.**—Extract of hyoscyamus, balm of gilead buds, with pulverized ipecac, or lobelia, and balsam of fir, of each, ¼ oz.; oil of anise, a few drops, to form into common sized pills. Dose.— One or two pills 3 or 4 times daily.

Dr. Beach says he endeavored for more than twenty-five years to obtain a medicine to fulfill the indications which are effected in this cough pill, particularly for ordinary colds and coughs; and this admirably answers the intention, excelling all others. It allays the irritation of the mucous membrane, the bronchial tubes, and the lungs, and will be found exceedingly valuable in deep-seated coughs and all diseases of the chest. The bad effects of opium (so much used in coughs) are in this pill entirely obviated, and it is altogether better than the Cough Drops, which I now dispense with.—*Beach's American Practice.*

WHOOPING COUGH.—Syrup.—Onions and garlics, sliced, of each, 1 gill; sweet oil, 1 gill; stew them in the oil, in a covered dish, to obtain the juices; then strain and add honey, 1 gill; paregoric and spirits of camphor, of each, ½ oz.; bottle and cork tight for use. Dose.—For a child of 2 or 3 years, 1 tea-spoon 3 or 4 times daily, or whenever the cough is troublesome, increasing or lessening, according to age.

This is a granny's prescription, but I care not from what source I derive information, if it gives the satisfaction which this has done, upon experiment. This lady has raised a large family of her own children, and grand-children in abundance. We have tried it with three of our children also, and prescribed it in many other cases with satisfaction, for over seven years. It is excellent also in common

colds attended with much cough. This is from experience, too, which I have found a very competent teacher.

It is said that a European physician has discovered that the dangerous symptoms of whooping cough are due to suppressed cutaneous eruptions, and that an external irritant, or artificial rash, is a sure remedy. See "Small Pox."

2. Dailey's Whooping Cough Syrup.—Take the strongest West India rum, 1 pt.; anise oil, 2 ozs; honey, 1 pt.; lemon juice, 4 ozs.; mix. DOSE.—For adults, 1 table-spoon 3 or 4 times a day,—children, 1 tea-spoon, with as much sugar and water.

He says that he has successfully treated more than one hundred cases with this syrup.

3. Soreness or Hoarseness from Coughs.—Remedy.—Spikenard root, bruised and steeped in a tea-pot, by using half water and half spirits; then inhaling the steam, when not too hot, by breathing through the spout, will relieve the soreness and hoarseness of the lungs, or throat, arising from much coughing.

IN-GROWING TOE NAIL.—To Cure.—We take the following remedy for a very common and very painful affliction, from the *Boston Medical and Surgical Journal:*

"The patient on whom I first tried this plan was a young lady who had been unable to put on a shoe for several months, and decidedly the worst I have ever seen. The edge of the nail was deeply undermined, the granulations formed a high ridge, partly covered with the skin; and pus constantly oozed from the root of the nail. The whole toe was swollen and extremely painful and tender. My mode of proceeding was this:

"I put a very small piece of tallow in a spoon, and heated it until it became very hot, and poured it on the granulations. The effect was almost magical. Pain and tenderness were at once relieved, and in a few days the granulations were all gone, the diseased parts dry and destitute of all feeling, and the edge of the nail exposed so as to admit of being pared away without any inconvenience. The cure was complete, and the trouble never returned.

"I have tried the plan repeatedly since, with the same satisfactory results. The operation causes but little pain, if the tallow is properly heated. A repetition in some cases might be necessary, although I have never met with a case that did not yield to one application."

It has now been proven, in many other cases, to be effectual, accomplishing in one minute, without pain, all that can be effected by the painful application of nitrate of silver for several weeks.

OILS.—British Oil.—Linseed and turpentine oils, of each, 8 ozs.; oils of amber and juniper, of each, 4 ozs.; Barbadoes tar, 8 ozs.; seneca oil, 1 oz. Mix.

This is an old prescription, but it is worth the whole cost of this book to any one needing an application for cuts, bruises, swellings,

and sores of almost every description, on persons, horses, or cattle; so is the following, also:

2. Balm of Gilead Oil.—Balm of Gilead buds, any quantity; place them in a suitable dish for stewing, and pour upon them sufficient sweet oil to just cover them; stew thoroughly, and press out all the oil from the buds, and bottle for use.

It will be found very valuable as a healing oil, or lard can be used in place of the oil, making an excellent ointment for cuts, bruises, etc.

3. Harlem Oil, or Welsh Medicamentum.—Sublimed or flowers of sulphur and oil of amber, of each, 2 ozs.; linseed oil, 1 lb.; spirits of turpentine, sufficient to reduce all to the consistence of thin molasses. Boil the sulphur in the linseed oil until it is dissolved, then add the oil of amber and turpentine. DOSE.—From 15 to 25 drops, morning and evening.

Amongst the Welsh and Germans it is extensively used for strengthening the stomach, kidneys, liver and lungs, asthma, shortness of breath, cough, inward or outward sores, dropsy, worms, gravel, fevers, palpitation of the heart, giddiness, headache, etc., etc., by taking it internally, and for ulcers, malignant sores, cankers, etc., anointing externally, and wetting linen with it and applying to burns. In fact, if one-half that is said of its value is true, no other medicine need ever be made. It has this much in its favor, however,—probably no other medicine now in use has been in use half so long—over 160 years. The dose for a child is one drop for each year of its age.

4. Oil of Spike.—The genuine oil of spike is made from the *lavendula spica* (broad-leaved lavendar), but the *commercial* oil of spike is made by taking the rock oil, and adding 2 ozs. of spirits of turpentine to each pint.

The rock oil which is obtained in Ohio, near Warren, is thicker and better than any other which I have ever used.

5. Black Oils.—Best alcohol, tincture of arnica, British oil, and oil of tar, of each, 2 ozs.; and *slowly* add sulphuric acid, ½ oz.

These black oils are getting into extensive use, as a liniment, and are indeed valuable, especially in cases attended with much inflammation.

6. Another Method—Is to take sulphuric acid, 2 ozs.; nitric acid, 1 oz.; quicksilver, ½ oz.; put them together in a quart bottle, or an open crock, until dissolved; then slowly add olive oil and spirits of turpentine, of each, ½ pt., putting in the oil first. Let the work be done out of doors, to avoid the fumes arising from the mixture; when all is done, bottle and put in all the cotton cloths it will dissolve, when it is fit for use.

The mixture becomes quite hot, although no heat is used in making it, from setting free what is called latent or insensible heat, by their combining together. Rev. Mr. Way, of Plymouth, Mich., cured himself of sore throat by taking a few drops of this black oil upon sugar, letting it slowly dissolve upon the tongue, each evening after preaching, also wetting cloths and binding upon the neck. It will be

necessary to avoid getting it upon cotton or linen which you would not wish to show a stain. A colt which had a fistulous opening between the hind legs, from a snag, as supposed, which reduced him so that he had to be lifted up, when down, was cured by injecting twice only, of this oil, to fill the diseased place. Also a very bad fever sore, upon the leg—ah! excuse me!—upon the *limb* of a young lady, which baffled the scientific skill of the town in which she lived. In case they bite too much in any of their applications, wet a piece of brown paper in water, and lay it over the parts.

OPODELDOC—Liquid.—Best brandy, 1 qt.; warm it and add gum camphor, 1 oz.; sal-ammoniac and oil of wormwood, of each, ¼ oz.; oils of origanum and rosemary, of each, ½ oz.; when the oils are dissolved by the aid of the heat, add soft soap, 6 ozs.

Its uses are too well known to need further description.

DIARRHEAS.—Cordial.—The best rhubarb root, pulverized, 1 oz.; peppermint leaf, 1 oz.; capsicum, ½ oz.; cover with boiling water, and steep thoroughly, strain, and add bicarbonate of potash and essence of cinnamon, of each, ½ oz.; with brandy (or good whisky) equal in amount to the whole, and loaf sugar, 4 ozs. Dose.—For an adult, 1 to 2 table-spoons; for a child, 1 to 2 tea-spoons, from 3 to 6 times per day, until relief is obtained.

This preparation has been my dependence, in my travels and in my family, for several years, and it has never failed us. But in extremely bad cases it might be well to use, after each passage, the following:

2. Injection for Chronic Diarrhea.—New milk, with thick mucilage of slippery elm, of each, 1 pt.; sweet oil, 1 gill; molasses, ½ pt.; salt, 1 oz.; laudanum, 1 dr. Mix, and inject what the bowels will retain.

Very many children, as well as grown persons, die annually of this disease, who might be saved by a proper use of the above injection and cordial. The injection should never be neglected, if there is the least danger apprehended.

Although I believe these would not fail in one case out of one hundred, yet I have some other prescriptions which are so highly spoken of, I will give a few more. The first, from Mr. Hendee, of Warsaw, Indiana, for curing Diarrhea, or Bloody Flux, as follows:

3. Diarrhea Tincture.—Compound tincture of myrrh, 6 ozs.; tincture of rhubarb, and spirits of lavender, of each, 5 ozs.; tincture of opium, 3 ozs.; oils of anise and cinnamon, with gum camphor and tartaric acid, of each, ½ oz. Mix. Dose.—One tea-spoon in ½ a tea-cup of warm water sweetened with loaf sugar; repeat after each passage.

He says he has cured many cases after given up by physicians. It must be a decidedly good preparation. Or, again:

4. Diarrhea Drops.—Tincture of rhubarb, and compound spirits of lavender, of each, 4 ozs.; laudanum, 2 ozs.; cinnamon oil, 2 drops. Mix. Dose.—One tea-spoon every 3 or 4 hours, according to the severity of the case.

This speaks from ten years' successful experience.

5. Diarrhea Syrup—For Cases brought on by long continued use of Calomel.—Boxwood, black cherry and prickly ash barks, with dandelion root, of each, 2 ozs.; butternut bark, 1 oz.; boil thoroughly, strain and boil down to 1 qt.; then add loaf sugar, 2 lbs., and alcohol, 1 gill, or brandy. ½ pt. Dose.—A wine-glass from 3 to 5 times daily, according to circumstances.

This regulates the bowels and tones up the system at the same time, no matter whether loose or costive. In one case of costiveness it brought a man around all right who had been sewed up tight for twelve days. On the other hand, it has regulated the system after months of calomel-diarrhea.

6. Wintergreen berries have been found a valuable corrector of Diarrhea brought on by the long-continued use of calomel in cases of fever, eating a quart of them in 3 days' time.

The gentleman of whom I obtained this item tells me that wintergreen essence has done the same thing, when the berries could not be obtained. In the first place, "everything else," as the saying is, had been tried in vain, and the man's wife, in coming across the woods, found these berries and picked some, which, when the husband saw, he craved, and would not rest without them, and, notwithstanding the fears of friends, they cured him. Many valuable discoveries are made in a similar manner.

7. Dried whortleberries, steeped, and the juice drank freely, has cured Diarrhea and Bloody Flux, both in children and adults.

8. Diarrhea and Canker Tea.—Pulverized hemlock bark (it is generally kept by druggists), 1 table-spoon, steeped in half a tea-cup of water.

For young children, in Diarrhea, or Canker, or when they are combined, feed a tea-spoon of it, or less, according to the child's age, two or three times daily, until cured. To overcome costiveness, which may arise from its use, scorch fresh butter, and give it in place of oil, and in quantities corresponding with oil. Children have been saved with three cents' worth of this bark, which "Allopath" said must die. If good for children, it is good for adults, by simply increasing the dose.

9. Sumac bobs, steeped and sweetened with loaf sugar, has been found very valuable for Diarrhea; adding, in very severe cases, alum, pulverized, a rounding tea-spoon, to 1 pt. of the strong tea. Dose.—A tea, to a table-spoon, according to the age of the child, and the severity of the case

It saved the life of a child when two M. D.'s (Mule Drivers) said it could not be saved.

CHOLERA TINCTURE.—Select the thinnest cinnamon bark, cloves, gum guaiac, all pulverized, of each, 1 oz.; very best brandy, 1 qt. Mix, and shake occasionally for a week or two. Dose.—A tea-spoon to a table-spoon for an adult, according to the condition and robustness or strength of the system. It may be repeated at intervals

of 1 to 4 hours, if necessary, or much more often, according to the condition of the bowels.

This I have from an old railroad-boss, who used it with his men during the last cholera in Ohio, and never lost a man, whilst other jobbers left the road, or lost their men in abundance, thinking the above too simple to be of any value.

2. Isthmus Cholera Tincture.—Tincture of rhubarb, cayenne, opium, and spirits of camphor, with essence of peppermint, equal parts of each, and each as strong as can be made. DOSE.—From 5 to 30 drops, or even to 60, and repeat until relief is obtained, every 5 to 30 minutes.

C. H. Cuyler, who was detained upon the Isthmus during the cholera period, was saved by this prescription, as also many others.

3. Cholera Preventive.—Hoffman's anodyne and essence of peppermint, of each, 2 ozs.; tincture of ginger, 1 oz.; laudanum, spirits of camphor, and tincture of cayenne, of each, ¼ oz.; mix. DOSE.—For an adult, from a tea to a table-spoon, according to symptoms.

4. Cholera Cordial.—Chloroform, spirits of camphor, laudanum, and aromatic spirits of ammonia, of each 1 dr.; cinnamon water, 2 ozs.; mix. DOSE.—From 1 tea to a table-spoon, to be well shaken, and taken with sweetened water.

5. German Cholera Tincture.—Sulphuric ether, 2 ozs.; and put into it castor and gentian, of each ¼ oz.; opium and agaric, each 1 dr.; gum camphor, ½ oz.; let them stand 2 days, then add alcohol, 1 qt.; and let stand 14 days, when it is ready for use. DOSE.—One teaspoon every 15 or 20 minutes, according to the urgency of the case.

I obtained this prescription of a German at Lawrenceburg, Ind., who had done very much good with it during the last cholera period in that place.

6. Egyptian Cure for Cholera.—Best Jamaica ginger root, bruised, 1 oz.; cayenne, 2 tea-spoons; boil all in 1 qt. of water, to ½ pt., and add loaf sugar to form a thick syrup. DOSE.—ONE table-spoon every 15 minutes, until vomiting and purging ceases, then follow up with a blackberry tea.

The foregoing was obtained of a physician who practiced in Egypt, (not the Illinois Egypt,) during the great devastation of the cholera there, with which he saved many lives.

7. India Prescription for Cholera.—First dissolve gum camphor, ¼ oz., in 1½ ozs. of alcohol; second, give a tea-spoon of spirits of hartshorn in a wine-glass of water, and follow it every 5 minutes with 15 drops of the camphor, in a tea-spoon of water, for 3 doses, then wait 15 minutes, and commence again as before, and continue the camphor for 30 minutes unless there is returning heat. Should this be the case, give one more dose and the cure is effected. Let them perspire freely, (which the medicine is designed to cause,) as upon this the life depends, but add no additional clothing.

Lady Ponsonby, who had spent several years in India, and had proved the efficacy of the foregoing, returned to Dublin in 1832, and published it in the *Dublin Mail*, for the benefit of her countrymen, declaring that she never knew it to fail.

I would say, be very sure you have the cholera, as the tea-spoon of hartshorn would be a double dose for ordinary cases of disease.

8. Nature's Cholera Medicine.—Laudanum, spirits of camphor, and tincture of rhubarb, equal parts of each. DOSE.—One table-spoon every 15 to 20 minutes, until relieved.

In attacks of cholera, the patient usually feels a general uneasiness and heat about the stomach, increasing to actual distress and great anxiety, finally sickness, with vomiting and purging, surface constringed, the whole powers of the system concentrated upon the internal organs, involving the nervous system, bringing on spasms, and in the end, death. Now, whatever will allay this uneasiness, drive to the surface, correct the discharges, and soothe the nerves, cures the disease. The laudanum does the first and the last, the camphor drives to the surface, and the rhubarb corrects the alimentary canal; and if accompanied with the hot bath, frictions, etc., is doubly sure. And to show what may be done with impunity in extreme cases, let me say that Merritt Blakeley, living near Flat Rock, Mich., came home from Detroit during the last cholera season, having the cholera in its last stage, that is, with the vomiting, purging, and spasms; the foregoing medicine being in the house, the wife, in her hurry and excitement, in place of two-thirds of a table-spoon, she read two-thirds of a tea-cup, and gave it accordingly, and saved his life; whilst if taken in the spoon doses, at this stage of the disease, he would most undoubtedly never have rallied from the collapse into which he was fast sinking; yet in the commencement they would have been as effectual; so, *mistake* would be generally accredited for saving the patient,—I say *Providence* did the work.

Five to 10 drops would be a dose for a child of 2 to 5 years, and in this dose it saved a child of 2½ years, in a bad case of bloody flux.

If any one is permitted to die with all these prescriptions before them, it must be because a proper attention is not given; for God most undoubtedly works through the use of means, and is best pleased to see his children *wear* out, rather than *break* by collision of machinery on the way.

CHOLIC AND CHOLERA MORBUS.—Treatment.—Cholera morbus arises from a diseased condition of the bile, often brought on by over-indulgence with vegetables, especially unripe fruits; usually commencing with sickness and pain at the stomach, followed by the most excruciating pain and griping of the bowels, succeeded by vomiting and purging, which soon prostrate the patient. The person finds himself unavoidably drawn into a coil by the contraction of the muscles of the abdomen and the extremities. Thirst very great, evacuations first tinged with bile, and finally, nearly all, very bilious.

TREATMENT.—The difficulty arises from the acidity of the bile; then take saleratus, peppermint leaf, and rhubarb root, pulverized, of

each a rounding tea-spoon, put into a cup which you can cover and pour upon them boiling water, ½ pt.; when nearly cold add a table-spoon of alcohol, or twice as much brandy or other spirits. DOSE.—Two to 3 table-spoons every 20 to 30 minutes, as often and as long as the vomiting and painful purgations continue. If there should be long continued pain about the naval, use the "Injection," as mentioned under that head, in connection with the above treatment, and you will have nothing to fear. If the first dose or two should be vomited, repeat it immediately, until retained.

The above preparation ought to be made by every family, and kept on hand, by bottling; for diseases of this character are as liable to come on in the night as at any other time; then much time must be lost in making fires, or getting the articles together with which to make it.

2. Common Cholic.—There is a kind of cholic which some persons are afflicted with, from their youth up, not attended with vomiting or purging. I was afflicted with it, from my earliest recollection until I was over twenty years of age, sometimes two or three times yearly.

In one of these fits, about that age, a neighbor woman came in, and as soon as she found out what was the matter with me, she went out and pulled up a buuch of blue vervain, knocked the dirt from the roots, then cut them off and put a good handful of them into a basin and poured boiling water upon them, and steeped for a short time. poured out a saucer of the tea and gave me to drink, asking no questions, but simply saying, "If you will drink this tea every day for a month, you will never have cholic again as long as you live." I drank it, and in fifteen minutes I was perfectly happy; the transition from extreme pain to immediate and perfect relief is too great to allow one to find words adequate to describe the difference.

I continued its use as directed, and have not had a cholic pain since, nearly thirty years. I have told it to others with the same result. It also forms a good tonic in agues, and after fevers, etc.

CARMINATIVES.—For the more common pains of the stomach arising from accumulating gas, in adults or children, the following preparation will be found very valuable, and much better than resorting to any of the opium mixtures for a constant practice, as many unwisely or wickedly do. See the remarks after "Godfrey's Cordial," and through this subject.

Compound spirits of lavender, spirits of camphor, and tincture of ginger, of each 1 oz.; sulphuric ether and tincture of cayenne, of each ½ oz. Mix and keep tightly corked. DOSE.—For an adult, 1 tea-spoon every 15 minutes, until relieved; for a child of 2 years, 5 drops; and more or less, according to age and the severity of the pain.

2. Carminative for Children.—Angelica and white roots, of each 4 ozs.; valerian and sculcap roots, with poppy heads, of each 2 ozs.; sweet flag-root, ¾ oz.; anise, dill, and fennel seed, with catmint leaves and flowers, motherwort and mace, of each 1 oz.; castor and cochineal, of each ½ oz.; camphor gum, 2 scruples; benzoic acid,

illed flower of benzoin,) ¼ oz.; alcohol and water, of each 1 qt.; or
m, or brandy, 2 qts.; loaf or crushed sugar, 1 lb. Pulverize all of
e herbs and roots, moderately fine, and place in a suitable sized bot-
, adding the spirits, or alcohol and water, and keep warm for a
ek, shaking once or twice every day; then filter or strain, and add
e camphor or benzoin, shaking well; now dissolve the sugar in
other quart of water, by heat, and add to the spirit tincture, and all
complete. DOSE.—For a very young child, from 3 to 5 drops; if 1
ar old, about 10 drops, and from that up to 1 tea-spoon if 2 to 5 years
l, etc. For adults, from 1 to 4 tea-spoons, according to the severity
the pain—to be taken in a cup of catmint or catnip tea for adults,
d in a spoon of the same for children. It may be repeated every 2
6 hours, as needed.

USES.—It eases pain, creates a moderate appetite and perspiration,
d produces refreshing sleep; is also excellent for removing flatu-
ncy or wind colic, and valuable in hysteria and other nervous affec-
ns, female debility, etc., in place of the opium anodynes.

SEIDLITZ POWDERS.—Genuine.—Rochelle salts, 2 drs.; bicar-
nate of soda, 2 scruples; put these into a blue paper, and put ta: aric
d, 35 grs.; into a white paper. To use, put each into different tum-
rs; fill ½ with water, and put a little loaf sugar in with the acid,
en pour together and drink.

This makes a very pleasant cathartic, and ought to be used more
nerally than it is, in place of more severe medicines. Families can
y 3 ozs. of the Rochelle salts, and 1 oz. of the bicarbonate of soda,
d mix evenly together, using about 2 tea-spoons for 1 glass, and
ve the tartaric acid by itself, and use a little over ½ a tea-spoon
it for the other glass, with a table-spoon of sugar, all well dissolved.
en pour together and drink while effervescing; and they will find
is to do just as well as to have them weighed out and put up in
pers, which cost three times as much, and do no better. Try it, as
hild will take it with pleasure, as a nice beverage and ask for more.

A lady once lost her life, thinking to have a little sport, by drink-
g one glass of this preparation, following it directly with the other.
ie large amount of gas disengaged, ruptured the stomach immedi-
ely.

DIPHTHERIA.—Dr Phinney's Remedy, of Boston.—Dr. Phin-
y, of Boston, furnishes the *Journal* of that city with a recipe for
phtheria, which has recently been re-published in the Detroit *Daily*
Inquirer, containing so much sound sense, and so decidedly the best
ing that I have ever seen recommended for it, that I cannot forbear
ving it an insertion, and also recommend it as the dependence in that
sease.

He says, "the remedy on which I chiefly depend is the Actea
acemosa, or black snake-root, which is used both locally as a gargle
nd taken internally.

As a gargle 1 tea-spoon of the *tincture* is added to 2 table-spoons
f water, and gargle *every hour* for *twenty-four* hours, or till the pro-

gress of the disease is arrested; after which the intervals may be extended to an hour and a half, or more, as the symptoms may justify. In connection with the use of the gargle, or separately, the adult patient should take internally to the amount of two or three tea-spoons of the tincture in the course of twenty-four hours.

"In addition to the foregoing, give 10 drops of the muriated tincture of iron, 3 times in the twenty-four hours, and a powder from 3 to 5 grains of the chlorate of potash in the intervals.

"Under this treatment a very decided improvement takes place within the first twenty-four hours, the ash colored membrane disappears usually within two days, and the patient overcomes the malignant tendency of the disease.

"The foregoing doses are for adults; for children they should of course be diminished according to age, etc. It will be observed that great importance is attached to the frequent use of the gargle—that is, *every hour*—in order to overcome the morbific tendency of disease by a constantly counteracting impression. In order to guard against a relapse, an occasional use of the remedies should be continued for several days after the removal of the membrane and subsidence of unpleasant symptoms. To complete the cure, a generous diet and other restoratives may be used as the intelligent practitioner shall direct."

CATHARTICS.—Vegetable Physic.—Jalap and peppermint leaf, of each 1 oz.; senna, 2 ozs.; pulverize all very finely, and sift through gauze; bottle it and keep corked. DOSE.—Put a rounding tea-spoon of the powder and a heaping tea-spoon of sugar into a cup, and pour 3 or 4 spoons of boiling water upon them; when cool stir it up and drink all. The best time for taking it is in the morning, not taking breakfast, but drinking freely of corn-meal gruel. If it does not operate in 3 hours, repeat half the dose until a free operation is obtained.

Dr. Beach first brought this preparation, nearly in its present proportions, to the notice of the Eclectic practitioners who have found it worthy of very great confidence, and applicable in all cases where a general cathartic action is required. It may be made into syrup or pills, if preferred.

2. Indian Cathartic Pills.—Aloes and gamboge, of each, 1 oz.; mandrake and blood-root, with gum myrrh, of each ¼ oz.; gum camphor and cayenne, of each 1½ drs.; ginger, 4 ozs.; all finely pulverized and thoroughly mixed, with thick mucilage (made by putting a little water upon equal quantities of gum arabic and gum tragacanth,) into pill mass; then formed into common sized pills. DOSE.—Two to 4 pills, according to the robustness of the patient.

Families should always have some of these cathartics, as well as other remedies, in the house, to be prepared for accident, providence, or emergence, whichever you please to call it. They may be sugar-coated, as directed under that head, if desired.

TOOTHACHE AND NEURALGIA REMEDIES.—Magnetic Tooth Cordial and Pain Killer.—Best alcohol, 1 oz.; laudanum, ⅛ oz.;

chloroform, liquid measures, ⅝ oz.; gum camphor, ½ oz.; oil of cloves, ½ dr.; sulphuric ether, ¾ oz.; and oil of lavender, 1 dr. If there is a nerve exposed, this will quiet it. Apply with lint. Rub also on the gums and upon the face against the tooth, freely.

"The raging toothache why endure,
When there is found a perfect cure,
Which saves the tooth, and stops the pain,
And gives the sufferer ease again."

In the case of an ulcerated tooth at Georgetown, Ohio, Mr. Jenkins, the proprietor of the "Jenkins House," had been suffering for eight days, and I relieved him by bathing the face with this preparation, using a sponge, for two or three minutes only, taking a tea-spoon or two into the mouth, for a minute or two, as it had broken upon the inside. The operation of the cordial was really *magical*, according to old notions of cure.

I offered to sell a grocer a book, at Lawrenceburgh, Ind. He read until he saw the "Magnetic Tooth Cordial" mentioned, then he says, "If you will cure *my* toothache, I will buy one." I applied the cordial, it being late Saturday evening, and on Monday morning he was the first man on hand for his book.

The Sheriff of Wayne county, Ind., at Centerville, had been suffering three days of *neuralgia*, and I gave him such decided relief in one evening, with this cordial, that he gave me a three dollar piece, with the remark, "Take whatever you please."

In passing from Conneautville, Pa., upon a canal boat, the cook, (who was wife of one of the steersmen,) was taken after supper with severe pain in the stomach. There being no peppermint on board, and as strange as it may appear, no spirits of any kind whatever, I was applied to as a physician to contrive something for her relief; I ran my mind over the articles I had with me, and could not hit upon any other so likely to benefit as the "Tooth Cordial," arguing in my mind that if good for pain where it could be applied to the spot externally, I could apply it to the point of pain internally in this case, (the stomach) as well. I gave her a tea-spoon of it in water, and waited five minutes without relief, but concluding to go "whole hog or none," I repeated the dose, and inside of the next five minutes she was perfectly cured. Her husband, the other steersman also, and one of the drivers, bought each a book, and the next week, in Erie, one of her neighbors bought another, upon her recommendation; since which myself and agents have freely used it, and recommend it for similar conditions with equal success.

The cases are too numerous to mention more. I mention these to give confidence to purchasers, that all, who need it, will not fail to give it a trial. It is good for any local pain, wherever it can be applied. Pain will not long exist under its use.

2. Homeopathic Tooth Cordial.—Alcohol, ½ pt.; tincture of arnica and chloroform, of each 1 oz.; oil of cloves, ½ oz. Mix and apply as the other.

There are many persons who would prefer this last to the foregoing, from the presence of arnica; and it is especially valuable as a liniment for bruises involving effusion of blood under the skin.

3. Neuralgia.—Internal Remedy.—Sal-ammoniac, ½ dr.; dissolve in water, 1 oz. DOSE.—One table-spoon every three minutes, for 20 minutes, at the end of which time, if not before, the pain will have disappeared.

The foregoing is from a gentleman who had been long afflicted with the disease, who found no success with any other remedy. Instead of common water, the "Camphor Water" or "Mint Water" might by some be preferred. The ammonia is a very diffusable stimulant, quickly extending to the whole system, especially extending to the surface.

4. King of Oils, for Neuralgia and Rheumatism.—Burning fluid, 1 pt.; oils of cedar, hemlock, sassafras, and origanum, of each, 2 ozs.; carbonate of ammonia, pulverized, 1 oz.; mix. DIRECTIONS.—Apply freely to the nerve and gums, around the tooth; and to the face in neuralgic pains, by wetting brown paper and laying on the parts, not too long, for fear of blistering,—to the nerves of teeth by lint.

A blacksmith, of Sturgis, Mich., cured himself and others, with this, of neuralgia, after physicians could give no relief.

5. Several years ago, I was stopping for a number of weeks at a hotel near Detroit; whilst there, toothache was once made the subject of conversation, at which time the landlady, a Mrs. Wood, said she had been driven by it, to an extreme measure—no less than boiling wormwood herbs in alcohol and taking a table-spoon of it into the mouth, boiling hot, immediately closing the mouth, turning the head in such a way as to bring the alcohol in contact with all the teeth, then spitting it out and taking the second immediately, in the same way, having the boiling kept up by setting the tin containing it upon a shovel of hot coals, bringing it near the mouth. She said she never had toothache after it, nor did it injure the mouth in the least, but, for the moment, she thought her head had collapsed, or the heavens and earth come together. And although the lady's appearance and deportment was such as to gain general esteem, I dared not try it or recommend it to others. But during the last season I found a gentleman who had tried the same thing, in the same way, except he took four spoons in his mouth at a time, and did not observe to keep his mouth closed to prevent the contact of the air with the alcohol, the result of which was a scalded mouth, yet a perfect cure of the pain and no recurrence of it for twelve years up to the time of conversation. And I do not now give the plan expecting it to become a general favorite, but more to show the severity of the pain, forcing patients to

such extreme remedies. It would not be applicable only in cases where the pain was confined entirely to the teeth.

6. Horse-Radish Root, bruised and bound upon the face, or other parts where the pain is located, has been found very valuable for their relief. And I think it better than the leaf for drafts to the feet, or other parts.

7. TEETH.—Extracting with little or no Pain.—Dr. Dunlap, a dentist of Chillicothe, O., while filling a tooth for me, called my attention to the following recipe, given by a dental publication, to prevent pain in extracting teeth. He had used it. It will be found valuable for all who must have teeth extracted, for the feeling is sufficiently unpleasant even when all is done that can be for its relief.

Tincture of aconite, chloroform, and alcohol, of each, 1 oz.; morphine, 6 grs. Mix. MANNER OF APPLICATION.—Moisten two pledgets of cotton with the liquid and apply to the gums on each side of the tooth to be extracted, holding them to their place with pliers or some other convenient instrument for 5 to 15 minutes, rubbing the gums freely inside and out.

My wife has had six teeth taken at a sitting, but the last two she wished to have out, she could not make up her mind to the work until I promised her it should not hurt in the extraction, which I accomplished by accompanying her to Dr. Porter's dental office, of this city, and administering chloroform in the usual way, just to the point of nervous stimulation, or until its effects were felt over the whole system, at which time the teeth were taken, not causing pain, she says, equal to toothache for one minute. Not the slightest inconvenience was experienced from the effects of the chloroform. I consider this plan, and so does Dr. Porter, far preferable to administering it until entire stupefaction, by which many valuable lives have been lost.

8. Dentrifice which Removes Tartareous Adhesions, Arrests Decay, and Induces a Healthy Action of the Gums.—Dissolve 1 oz. of borax in 1½ pints of boiling water, and when a little cool, add 1 teaspoon of the tincture of myrrh and 1 table-spoon of the spirits of camphor, and bottle for use. DIRECTIONS.—At bedtime, wash out the mouth with water; using a badger's hair brush (bristle brushes tear the gums and should never be used); then take a table-spoon of the dentrifice with as much warm water, and rub the teeth and gums well, each night until the end is attained.

9. Tooth-Wash—To Remove Blackness.—Pure muriatic acid, 1 oz.; water, 1 oz.; honey, 2 ozs.; mix. Take a tooth-brush and wet it freely with this preparation, and briskly rub the black teeth, and in a moment's time they will be perfectly white; then immediately wash out the mouth with water, that the acid may not act upon the *enamel* of the teeth.

It need not be used often, say once in three or four months, as the teeth become black again, washing out quickly every time. Without the washing after its use it would injure the teeth, with it, it never

will. This blackness is hard to remove, even with the brush and tooth-powder.

10. Dr. Thompson, of Evansville, Ind., gives the above in twenty-drop doses, three times daily, for laryngitis or bronchitis, taken in a little water, throwing it back past the teeth.

11. Tooth-Powder—Excellent.—Take any quantity of finely pulverized chalk, and twice as much finely pulverized charcoal; make very fine; then add a very little suds made with castile soap, and sufficient spirits of camphor to wet all to a thick paste. Apply with the finger, rubbing thoroughly, and it will whiten the teeth better than any tooth-powder you can buy.

I noticed the past season, a piece going the rounds of the papers, "That charcoal ought not to be used on the teeth." I will only add that a daughter of mine has used this powder over six years, and her teeth are very white, and no damage to the enamel, as yet. *Six years* would show up the evil, if *death was in the pot.* Coal from basswood or other soft wood is easiest pulverized.

ESSENCES.—Druggists' rules for making essences is to use one ounce of oil to one quart of alcohol, but many of them do not use more than half of that amount, whilst most of the peddlers do not have them made of more than one-fourth that strength. I would hardly set them away if presented. I have always made them as follows:

Peppermint oil, 1 oz.; best alcohol, 1 pt. And the same amount of any other oil for any other essence which you desire to make. DOSE—A dose of this strength of essence will be only from 10 to 30 drops.

With most essences a man can drink a whole bottle without danger, or benefit. Peppermint is colored with tincture of tumeric, cinnamon with tincture of red sandal or sanders wood, and wintergreen with tincture of kino. There is no color, however, for essences, so natural as to put the green leaf of which the oil is made into the jar of essence, and let it remain over night, or about twelve hours; then pour off, or filter it for sale. But if families are making for their own use they need not bother to color them at all. But many believe if they are high colored they are necessarily strong, but it has no effect upon the strength whatever, unless colored with the leaf or bark, as here recommended. Cinnamon bark does in the place of the leaf. See "Extracts."

TINCTURES.—In making any of the tinctures in common use, or in making any of the medicines called for in this work, or in works generally, it is not only expected, but absolutely necessary, that the roots, leaves, barks, etc., should be dry, unless otherwise directed; then:

Take the root, herb, bark, leaf, or gum called for, 2 ozs.; and bruise it, then pour boiling water ½ pt., upon it, and when cold add best alcohol, ½ pt., keeping warm for from 4 to 6 days, or letting it

stand 10 or 12 days without warmth, shaking once or twice daily; then filter or strain; or it may stand upon the dregs and be carefully poured off as needed.

With any person of common judgment, the foregoing directions are just as good as to take up forty times as much space by saying—take lobelia, herb and seed, 2 ozs.; alcohol, ½ pt.; boiling water, ½ pt.,—then do the same thing, over and over again, with every tincture which may be called for; or at least those who cannot go ahead with the foregoing instructions, are not fit to handle medicines at all; so I leave the subject with those for whom the given information is sufficient.

In making compound tinctures, you can combine the simple tinctures, or make them by putting the different articles into a bottle together, then use the alcohol and water it would require if you was making each tincture separately.

TETTER, RINGWORM, AND BARBER'S ITCH.—To Cure.—Take the best Cuba cigars, smoke one a sufficient length of time to accumulate one-fourth or one-half inch of ashes upon the end of the cigar; now wet the whole surface of the sore with the saliva from the mouth, then rub the ashes from the end of the cigar thoroughly into and all over the sore; do this three times a day, and inside of a week all will be smooth and well.

I speak from extensive experience; half of one cigar cured myself when a barber would not undertake to shave me. It is equally successful in tetters on other parts of the body, hands, etc.

Tobacco is very valuable in its place (medicine)—like spirits, however, it makes *slaves* of its devotees.

2. Narrow-Leaved (yellow) dock root, sliced and soaked in good vinegar, used as a wash, is highly recommended as a cure for tetter, or ringworm.

BALSAMS—Dr. R. W. Hutchins' Indian Healing, formerly, Peckham's Cough Balsam.—Clear, pale resin, 3 lbs., and melt it, adding spirits of turpentine, 1 qt.; balsam of tolu, 1 oz.; balsam of fir, 4 ozs.; oil of hemlock, origanum, with Venice turpentine, of each, 1 oz.; strained honey, 4 ozs.; mix well and bottle. Dose.—Six to 12 drops; for a child of six, 3 to 5 drops, on a little sugar. The dose can be varied according to the ability of the stomach to bear it, and the necessity of the case.

It is a valuable preparation for coughs, internal pains, or strains, and works benignly upon the kidneys.

2. Dr. Mitchel's Balsam, for Cuts, Bruises, etc.—Fenugreek seed, and gum myrrh, of each, 1 oz.; sassafras root bark, a good handful, alcohol, 1 qt. Put all into a bottle and keep warm for five days.

Dr. Mitchell, of Pa., during his life, made great use of this balsam, for cuts, bruises, abrasions, etc., and it will be found valuable for such purposes.

ARTIFICIAL SKIN—For Burns, Bruises, Abrasions, etc., Proof Against Water.—Take gun cotton and Venice turpentine, equal parts of each, and dissolve them in 20 times as much sulphuric

ether, dissolving the cotton first, then adding the turpentine; keep it corked tightly.

The object of the turpentine is to prevent pressure or pinching caused by evaporation of the ether when applied to a bruised surface. Water does not affect it, hence its value for cracked nipples, chapped hands, surface bruises, etc., etc.

DISCUTIENTS—To Scatter Swellings.—Tobacco and cicuta (water hemlock) leaves, of each, 2 ozs.; stramonium, (jimpsom) and solanum nigrum (garden night shade, sometimes erroneously called *deadly* night shade,) the leaves, and yellow dock root, of each, 4 ozs.; bitter-sweet, bark of the root, 3 ozs. Extract the strength by boiling with water, pressing out, and re-boiling, straining and carefully boiling down to the consistence of an ointment, then add lard, 18 ozs. and simmer together.

It will be used for stiff joints, sprains, bruises attended with swelling when the skin is unbroken, for cancerous lumps, scrofulous swellings, white swellings, rheumatic swellings, etc. It is one of the best discutients, or scatterers in use, keeping cancers back, often for months.

SMALL-POX—To Prevent Pitting the Face.—A great discovery is reported to have recently been made by a Surgeon of the English army in China, to prevent pitting or marking the face. The mode of treatment is as follows:

When, in small-pox, the preceding fever is at its height, and just before the eruption appears, the chest is thoroughly rubbed with Croton Oil and Tartar emetic Ointment. This causes the whole of the eruption to appear on that part of the body to the relief of the rest. It also secures a full and complete eruption, and thus prevents the disease from attacking the internal organs. This is said to be now the established mode of treatment in the English army in China, by general orders, and is regarded as perfectly effectual.

It is a well known fact, that disease is most likely to make its attack upon the weakest parts, and especially upon places in the system which have been recently weakened by previous disease; hence, if an eruption (disease) is caused by the application of croton oil mixed with a little of the Tartar emetic Ointment, there is every reason to believe that the eruption, in Small-Pox, will locate upon that part instead of the face. The application should be made upon the breast, fore part of the thighs, etc., not to interfere with the posture upon the bed.

It has been suggested that a similar application will relieve whooping cough, by drawing the irritation from the lungs; if so, why will it not help to keep measles to the surface, especially when they have a tendency to the internal organs, called striking in. It is worth a trial in any of these cases. See "Causes of Inflammation," under the head of "Inflammation."

2. **Common Swellings, to Reduce.**—Tory-weed pounded so as to mash it thoroughly and bound upon any common swelling, will very soon reduce the parts to their natural size.

This weed may be known from its annoyance to sheep raisers, as it furnishes a small burr having a dent on one side of it, but the burr of the other kind has no dent—is round. It will be found very valuable in rheumatisms attended with swellings.

WENS—To Cure.—Dissolve copperas in water to make it strong; now take a pin, needle, or sharp knife, and prick or cut the wen in about a dozen places, just sufficient to cause it to bleed; then wet it thoroughly with the copperas water, once daily.

This, followed for four weeks, cured a man residing within four miles of this city, who had six or eight of them, some of them on the head as large as a hen's egg. The preparation is also valuable, as a wash, in erysipelas.

BLEEDINGS—Internal and External—Styptic Balsam.—For internal hemorrhage, or bleeding from the lungs, stomach, nose, and in excessive menstruation or bleeding from the womb, is made as follows:

Put sulphuric acid, 2 ½ drs., by weight, in a Wedgewood mortar, and slowly add *oil* of turpentine 1 fluid dr., stirring it constantly with the pestle; then add slowly again, alcohol 1 fluid dr., and continue to stir it as long as any fumes arise from the mixture, then bottle in glass, ground stoppered, bottles. It should be a clear red color, like dark blood, but if made of poor materials it will be a pale, dirty red, and unfit for use. DOSE.—To be given by putting 40 drops into a tea-cup and rubbing it thoroughly with a tea-spoon of brown sugar, and then stir in water until the cup is nearly full, and drink immediately—repeat every hour for 3 or 4 hours, but its use should be discontinued as soon as no more fresh blood appears. Age does not injure it, but a skin forms on top which is to be broken through, using the medicine below it.

This preparation was used for thirty years, with uniform success by Dr. James Warren, before he gave it to the public; since then, Dr. King, of Cincinnati, author of the Eclectic Dispensatory, has spread it, through that work, and many lives have been saved by it. It acts by lessening the force of the circulation (sedative powder), as also by its astringent effects in contact with the bleeding vessels. And the probability is that no known remedy can be as safely depended upon for more speedy relief, or certainty of cure, especially for the lungs, stomach, or nose; but for bleeding from the womb, or excessive menstruation, I feel to give preference to Prof. Pratt's treatment as shown in the recipe for "Uterine Hemorrhages." No relaxation from business need be required, unless the loss of blood makes it necessary, nor other treatment, except if blood has been swallowed, or if the bleeding is from the stomach, it would be well to give a mild cathartic. Bleeding from the stomach will be distinguished from bleeding from the lungs by a sense of weight, or pain, and unaccompanied by cough, and discharged by vomiting, and in larger quantities at a time than

from the lungs. The blood will be darker at [redacted] and often mixed with particles of food.

Exercise in the open air is preferable to inactivity; and if any symptoms of returning hemorrhage show themselves, begin with the remedy without loss of time, and a reasonable hope of cure may be expected.

2. External Styptic Remedies.—Take a glazed earthen vessel that will stand heat and put into it water, 2½ pts.; tincture of benzoin, 2 ozs.; alum, ¼ lb., and boil for 6 hours, replacing the water which evaporates in boiling, by pouring in boiling water so as not to stop the boiling process, constantly stirring. At the end of the 6 hours it is to be filtered or carefully strained and bottled, also in glass stoppered bottles. APPLICATION.—Wet lint and lay upon the wound, binding with bandages to prevent the thickened blood, (coagula) from being removed from the mouths of the vessels, keeping them in place for 24 to 48 hours will be sufficient.

If any doubt is felt about this remedy, pour a few drops of it into a vessel containing human blood—the larger the quantity of the *styptic* the thicker will be the blood mass, until it becomes black and thick. Pagliari was the first to introduce this preparation to public notice.—*Eclectic Dispensatory.*

3. Styptic Tincture—External Application.—Best brandy, 4 ozs.; finely scraped castile soap, 2 drs; potash, 1 dr.; mix all, and shake well when applied. Apply warm by putting lint upon the cut wet with the mixture.

I have never had occasion to try either of the preparations, but if I do, it will be the "Balsam," or "External Styptic" first, and if they should fail I would try the "Tincture," for I feel that it must stop blood, but I am also certain that it would make a sore, aside from the cut; yet, better have a sore than lose life, of course. These remedies are such, that a physician might pass a lifetime without occasion to use, but none the less important to know.

BRONCHOCELE—Enlarged Neck—To Cure.—Iodide of potassium (often called hydriodate of potash) 2 drs.; iodine, 1 dr.; water 2½ ozs., mix and shake a few minutes and pour a little into a vial for internal use. DOSE.—Five to 10 drops before each meal, to be taken in a little water. EXTERNAL APPLICATION.—With a feather wet the enlarged neck, from the other bottle, night and morning, until well.

It will cause the scarf skin to peel off several times before the cure is perfect, leaving it tender, but do not omit the application more than one day at most, and you may rest assured of a cure, if a cure can be performed by any means whatever; many cures have been performed by it, and there is no medicine yet discovered which has proved one-hundreth part as successful.

2. But if you are willing to be longer in performing the cure, to avoid the soreness, dissolve the same articles in alcohol, 1 pt.; and use the same way, as above described, *i. e.*, both internal and external.

PAIN-KILLER—Said to be Perry Davis's.—Alcohol, 1 qt.:

gum guaiac, 1 oz.; gums myrrh and camphor, and cayenne pulverized, of each, ½ oz. Mix. Shake occasionally for a week or ten days and filter or let settle for use. Apply freely to surface pains, or it may be taken in tea-spoon doses for internal pains, and repeat according to necessities.

If any one can tell it from its namesake, by its looks or actions, we will then acknowledge that the old minister, from whom it was obtained, was greatly deceived, although he was perfectly familiar for a long time with Mr. Davis, and his mode of preparing the pain-killer.

POISONS—Antidote.—When it becomes known that a *poison* has been swallowed, stir salt and ground mustard, of each a heaping tea-spoon, into a glass of water, and have it drank *immediately*. It is the *quickest* emetic known.

It should vomit in one minute. Then give the whites of two or three eggs in a cup or two of the strongest coffee. If no coffee, swallow the egg in sweet-cream, and if no cream sweet-milk, if neither, down with the egg.

I have used the mustard with success, in the case of my own child, which had swallowed a "Quarter," beyond the reach of the finger, but remaining in the throat, which, to all appearances, would have soon suffocated him. I first took "granny's plan" of turning the head down and patting on the back; failing in this, I mixed a heaping tea-spoon of mustard in sufficient water to admit its being swallowed readily; and in a minute we had the quarter, dinner, and all; without it, we should have had no child.

I knew the mustard to work well once upon about twenty men in a boat-yard, on the Belle River, Newport, Mich. I had been furnishing them with "Switchel" at twenty cents per bucket, made by putting about a pound of sugar, a quart of vinegar, and two or three table-spoons of ginger to the bucket of water, with a lump of ice. An old man, also in the grocery business, offered to give it to them at eighteen pence per bucket, but, by some mistake, he put in mustard instead of ginger. They had a general vomit, which made them think that cholera had come with the horrors of "Thirty-Two," but as the downward effects were not experienced, it passed off with great amusement, safely establishing my custom at the twenty cents per bucket.

INFLAMMATORY DISEASES.—Description.—Before I attempt to speak of the inflammation of particular organs, I shall make a few remarks upon the subject in general, which will throw out the necessary light for those not already informed; and I should be glad to extend my treatment to all of the particular organs of the body, but the limits of the work only allows me to speak of Pleurisy, Inflammation of the Lungs, etc.; yet, *Eclectic* ideas of inflammation are such, that if we can successfully, treat inflammation in one part of the system, (body,) we can, with but little modification, succeed with it in all its forms: And my general remarks shall be of such a nature as to enable any

judicious person to successfully combat with inflammations in every part of the system. Then:

FIRST.—Inflammation is, generally, attended with *pain, increased heat, redness,* and *swelling.* Some, or all of these signs *always* accompanying it, according to the *structure* of the organ affected.

SECOND.—The more loose the structure of the organ, the less severe will be the pain; and the *character* of the structure also modifies the character of the *pain.* In *mucous* membranes, it is burning or stinging. In *serous* membranes it is lancinating, and most usually very sharp and cutting. In *fibrous* structures, it is dull, aching, and gnawing. In *nervous* structures, it is quick, jumping, and most usually excruciatingly severe; and in nearly all structures more or less soreness is soon present.

THIRD.—To make the foregoing information of value, it becomes necessary to *know* the structure of the various parts of the system. Although the ultimate portions of muscle or flesh, as usually called, is fibrous, yet, there is a *loose cellular* structure blended with it, which fills up and rounds the form to its graceful beauty—hence, here, we have more swelling, and less severity of pain. With the rose, or red of the lips, commences the *mucous* membrane, which forms the lining coat of the mouth, stomach, etc., through the whole alimentary canal, also lining the urethra, bladder, ureters, vagina, womb, fallopian tubes, etc., hence the heat always felt in inflammation of these organs. The whole internal surface of the cavity of the body is lined by a *serous* membrane, which is also reflected or folded upon the lungs—here called *pleura,* (the side,) hence pleurisy, (inflammation of the pleura or side,) and also folded upon the upper side of the diaphragm; the diaphragm forming a partition between the upper and lower portions of the cavity of the body, the upper portion containing the lungs, heart, large blood vessels, etc., called the *chest,* more commonly the breast—the lower portion containing the stomach, liver, kidneys, intestines, bladder, etc., called the *abdomen*—more commonly the bowels. The sides of the abdomen are covered with a continuation of this *serous* membrane, which is also reflected upon the lower side of the diaphragm, liver, stomach, small and large intestines, bladder, etc.,—here called *peritoneum,* (to extend around) in all places it secretes (furnishes) a moistening fluid enabling one organ of the body to move upon itself or other organs without friction. This serous membrane is thin, but very firm, hence the sharpness of the pain when it is inflamed, as it cannot yield to the pressure of the accumulating blood.

FOURTH.—The ligaments or bands which bind the different parts of the body together at the joints, and the gracefully contracted ends of the muscles (called tendons) which pass the joint, attaching themselves to the next bone above, or below, and the wristlet-like bands which are clasped around the joints through which these tendons

play, as over a pully, when the joint is bent, are all of a *fibrous* construction, hence the grinding or gnawing pains of rheumatism (inflammations), and injuries of, or near joints; and it also accounts for that kind of pain in the latter stages of intestinal inflammations, as the stomach, intestines, etc., are composed of three coats, the external, serous,—middle fibrous, internal, mucuous; and when inflammation of the external, or internal coats are long continued, it generally involves the middle—fibrous layer.

FIFTH.—The greatest portion of the substance of the lungs is of *fibrous* tissue, consequently, dull or obtuse pain only, is experienced when inflamed.

LASTLY.—The nervous system, although of a *fibrous* character is so indescribably fine in its *structure*, that, like the telegraph wire, as soon as touched, it answers with a bound, to the call—quick as thought, whether pain or pleasure, jumping, bounding, it goes to the grand citadel (the brain) which overlooks the welfare of the whole temple.

In general, the intensity of the pain attending inflammations will surely indicate the violence of the febrile (sympathetic) reaction; for instance, in inflammation of the bronchial tubes, the pain is not very severe, consequently not much fever, (reaction); but in inflammation of the pleura (pleurisy) the pain is very severe, consequently the febrile reaction exceedingly great.

Causes of Inflammation.—In health, the *blood* is carried evenly, in proportion to the size of the blood vessels, to every part of the body. And the vessels (arteries and veins) are proportioned in size to the necessity of the system for vitality, nutrition, and reparation. Whatever it may be that causes the blood to *recede* from the surface, or any considerable portion of it, will cause inflammation of the weakest portion of the system; and whatever will draw the blood unduly to any part of the system, will cause inflammation of that part,—for instance, cold drives the blood from the surface, consequently, if sufficiently long continued, the internal organ least able to bear the accumulation of blood upon it will be excited to inflammation—a blow upon any part, if sufficiently severe, will cause inflammation of the injured part. Also mustard poultices, drafts to the feet, etc., hence the propriety of their proper use to draw the blood away from internal organs which are inflamed. A check of perspiration is, especially, liable to excite inflammation, and that in proportion to the degree of heat producing the perspiration and the length of time which the person may be exposed to the cold. The object of knowing the cause of disease is to avoid suffering from disease, by keeping clear of its cause; or thereby to know what remedy to apply for its cure or relief.

There is a class of persons who claim that *causes* will have their legitimate *effects, physical or moral;* physicians *know* that it is absurd

physically; that is, when philosophically and scientifically combated with,—for instance, a person is exposed to cold; the blood is driven in upon the internal organs, and the one which is the least able to bear the pressure gives way before the invading enemy, and an inflammation is the result; which, if left to itself, will terminate in death; but heat and moisture are applied to the constringed surface—the blood is brought back and held there, and a cure is speedily effected—the natural or physical *effect* of the cause is *obviated* or avoided.

Then why should it be thought impossible with God that a *moral* remedy should be provided against moral evils? Thanks be to God, it has been provided to the *willing* and *obedient*, through our Lord Jesus Christ, but *only* to the willing and obedient, morally as well as physically, for if a person *will not* permit a proper course to be pursued to overcome the consequences arising to his body from cold, he *must* suffer, not only the inflammation to go on, but also guilt of mind for neglecting his known duty. The same is true in either point of view, only it looks so curious that there should be those who can reason of physical things, but utterly refuse to give up their moral blindness; the consequences be upon their own heads.

Just in proportion to the susceptibility of an organ to take on diseased action, is the danger of exposure; for example, if a person has had a previous attack of pleurisy, or inflammation of the lungs, those organs, or the one which has been diseased, will be almost certain to be *again* prostrated, usually called *relapse;* which is in most cases *ten times* more severe than the first attack; then be *very* careful about exposures when just getting better from these, or other diseases.

Inflammation terminates by *resolution, effusion, suppuration or mortification.* By *resolution*, is meant that the parts return to their *natural* condition; by *effusion*, that *blood* may be thrown out from the soft parts, or from *mucous membranes*,—that *lymph* or *serum*, a colorless part of the blood may be thrown out by *serous* membranes, which often form adhesions, preventing the after motions of the affected parts—and here what wisdom is brought to light, in the fact that whatever is thrown out from the *mucous* surface never, or at least *very* seldom adhere, or grow up; if it did, any part of the alimentary canal from the mouth to the stomach, and so on through the intestines, would be constantly adhering; so, also of the lungs; for these various organs are more frequently affected by inflammations than any other parts of the body—by *suppuration*, when *abscesses* are formed containing pus (matter,) or this may take place upon the surface, when it is usually called canker, or corroding ulcers, cancers, etc.; by *gangrene*, (mortification,) when death of the parts take place; in this case, if the part is sufficiently extensive, or if it is an internal part, death of the whole body, if not relieved, is the result.

The methods of inflammatory termination is believed to result

from the grade of inflammation—for instance, at the circumference of a boil, the inflammation is weak, *serum* is thrown out; near the centre, where the inflammation is a little higher, *lymph* is poured out and adhesion takes place; next *pus*—at the centre, *mortification* and consequent sloughing takes place.

In *boils*, the tendency is to suppuration; in *carbuncles*, the tendency is to mortification; but in rheumatism, mumps, etc., there is a strong tendency to resolution; and it is often very difficult to avoid these natural terminations.

The five different tissues of the body also modify the inflammation according to the tissue inflamed, viz: the *cellular* (fleshy) tissue, is characterized by great swelling, throbbing pain, and by its suppurating in cavities—not spreading all over that tissue. Inflammation of the *serous* tissue, has sharp, lancinating pain, scarcely any swelling, but much reaction (fever,) throws out lymph, and is very liable to form adhesion—not likely to terminate in mortification, except in peritonitis (inflammation of the lining membrane of the abdominal cavity,) which sometimes terminates thus in a few hours, showing the necessity of immediate action. Inflammation of the *mucous* tissue, is characterized by burning heat, or stinging pain, (hence the heat of the stomach, bowels, etc.,)—without swelling, not much febrile reaction, and never terminates in resolution (health) without a copious discharge of mucous as from the nose and lungs, in colds, catarrhs, coughs, etc. Inflammation of the *dermoid* (skin) tissue, as in erysipelas, is characterized by burning pain—spreads irregularly over the surface, forming blisters containing a yellow serum, but never forms adhesions, nor suppurates in cavities, but upon the surface. Inflammation of the *fibrous* tissue, or rheumatic inflammation, is characterized by severe aching or gnawing pain—is not liable to terminate in suppuration nor mortification—nearly always throwing out a gelatinous serum, often causing stiff-joints, or depositing earthy matter, as in gout—is peculiarly liable to change its place, being very dangerous if it changes many of the vital organs, as the brain, heart, stomach, etc., and in the acute form the febrile reaction is usually quite severe. *Internal* inflammation will be known by the constant pain of the inflamed part, by the presence of fever, which does not generally attend a spasmodic or nervous pain, and by the position chosen by the patient, to avoid pressure upon the afflicted organs.

Inflammation is known under two heads, *acute* and *chronic*. The first is generally rapid and violent in its course and characteristics. The last is usually the result of the first,—is more slow and less dangerous in its consequences.

TREATMENT.—Sound philosophy (Eclecticism) teaches, that if cold has driven the blood (consequently the heat) from the surface, heat will draw it back; and thus relieve the internal engorgements

(over-full organs) and if held there, sufficiently long, entirely cure the difficulty (inflammation), upon the same ground, if a person is cold, warm him; if wet and cold, warm and dry him; if hot, cool him; if dry and hot wet and cool him—equalize the circulation and pain or disease cannot exist.

The foregoing remarks must suffice for general directions; but the following special application to *pleurisy* and *inflammation of the lungs* shall be sufficiently explicit to enable all to make their *general* applications:

2. Pleurisy.—Pleurisy is an inflammation of the *serous* membrane enveloping (covering) the lungs, which is also reflected (folded) upon the parieties (sides or walls) of the chest, (but I trust all will make themselves familiar with the description of "Inflammation in General," before they proceed with the study of pleurisy,) attended with sharp lancinating pain in the side, difficult breathing, fever, with a quick, full, and hard pulse, usually commencing with a chill. In many cases the inflammation, consequently the pain, is confined to one point, most commonly about the short ribs; but often gradually extends towards the shoulder and forward part of the breast; the pain increasing and often becoming very violent. It may not, but usually is attended with cough, and the expectoration is seldom mixed with blood, or very free, but rather of a glairy or mucous character. As the disease advances, the pain is compared to a stab with a sharp instrument, full breathing not being indulged, from its increasing the difficulty; the cough also aggravates the pain; great prostration of strength, the countenance expressing anxiety and suffering. The breathing is short, hurried, and catching, to avoid increase of pain; in some cases the cough is only slight. It may be complicated with inflammation of the lungs, or bronchial tubes, and if so complicated, the expectoration will be mixed or streaked with blood. Yet it makes but very little difference, as the treatment is nearly the same—with the exception of expectorants, quite the same; although expectorants are not *amiss* in pleurisy, but absolutely *necessary* in inflammation of the lungs. Even Mackintosh, of the "Regulars," says: "It must be recollected that pneumonia," (inflammation of the lungs,) "and pleuritis," (pleurisy,) "frequently co-exist," (exist together); "but neither is that circumstance of much consequence, being both inflammatory diseases, and requiring the same general remedies." But there I stop with him, for I cannot go the bleeding, calomel, and antimony. I have quoted his words to satisfy the people that the "Regulars" acknowledge the necessity of a similar treatment in all inflammatory diseases, the *difference* between the two branches of the profession, existing only in the *remedies* used.

Causes of Pleurisy.—Cold, long applied, constringes (makes smaller) the capillaries (hair-like blood vessels) which cover as a net-

work the whole surface, impairing the circulation, driving the blood internally, causing congestion (an unnatural accumulation of blood) upon the pleura, hence pleurisy. Exposures to rains, especially cold rains, cold, wet feet, recession (striking in) of measles, scarlet fever, rheumatism, etc., often cause inflammation of this character.

Indications.—Relax the whole surface, which removes the obstructions—restore, and maintain, an equal circulation, and the work is accomplished. The temperature of the surface and extremities is much diminished, showing that the blood has receded (gone) to the internal diseased organs, the temperature of which is much increased; for with the blood goes the vitality (heat) of the body. This condition of the system clearly indicates the treatment, viz.: the application of heat to the surface in such a way as to be able to keep it there until nature is again capable of carrying on her own work, in her own way.

TREATMENT.—It has been found that the quickest and least troublesome way in which heat could be applied to the whole surface, is by means of burning alcohol, formerly called a "Rum Sweat," because rum was stronger than at present, and more plenty than alcohol; but now alcohol is the most plenty, and much the strongest and cheapest. It should always be in the house, (the 98 per cent.,) ready for use as described under the head of "Sweating with Burning Alcohol," (which see), or if it is day time, and fires are burning, you can give the vapor bath sweat, by placing a pan, half or two-thirds full of hot water, under the chair, having a comforter around you; then putting into it occasionally a hot stone or brick, until a free perspiration is produced and held for from 15 to 30 minutes, according to the severity of the case; and if this is commenced as soon as the attack is fairly settled upon the patient, in not more than one case out of ten will it be necessary to do anything more; but if fairly established, or if of a day or two's standing, then, at the same time you are administering the *sweat*, place the patient's feet in water as hot as it can be borne; have also a strong tea made of equal parts of pleurisy-root and catnip, (this root is also called white root—doctors call it asclepias tuberosa)—into a saucer of this hot tea put 2 tea-spoons of the "Sweating Drops," drinking all at one time, repeating the dose every hour for 5 or 6 hours, using only 1 tea-spoon of the drops at other times, except the first, giving the tea freely once or twice between doses. As soon as the sweating is over, place the patient comfortably in bed, so as to keep up the perspiration from 6 to 12 hours, or until the pain and uneasiness yield to the treatment. If necessary, after the patient takes the bed, place bottles of hot water to the feet and along the sides, or hot bricks, or stones wrapped with flannel wet with vinegar, to help keep up the perspiration. Mustard may also be placed over the seat of pain, and upon the feet, also rubbing the arms and legs with dry flannel, which very much aids the process when the attack is severe. If the pain *continues* severe, and perspiration is hard to maintain, steep cayenne, or common red peppers, in spirits and rub the whole surface with it, well and long, and I will assure the blood to come out soon and see what is going on externally. Keep the patient well covered all the time, and avoid drafts of cold air. As the painful symptoms begin to subside, the doses of medicine may be lessened, and the time between doses lengthened, until the disease is fairly under control; then administer a dose of the "Vegetable Physic," or some other

cathartic, if preferred, or if that is not at hand, this course may be repeated or modified to meet returning or changing symptoms.

Wetting the surface daily, with alcohol and water, equal parts, will be found an excellant assistant in treating any disease, especially internal inflammations, as Pleurisy, Inflammation of the Lungs, Consumption, Bronchitis, etc., etc.

The pleurisy root is almost a specific in pleurisy or inflammation of the lungs; no other known root or herb is equal to it for producing and keeping up perspiration, (druggists usually keep it,); but if it cannot be got, pennyroyal, sage, etc., or one of the mints, must be used in its place. The only objection to the foregoing treatment is this, the doctors say:

> Heigh! I guess he wasn't very sick;
> For see! he's round in "double quick";
> But allopath holds 'em for weeks, six or seven.
> When bleeding, calomel, and antimony are given.

To illustrate: I awoke one night with severe pain in the left side, (I had been exposed to cold during the afternoon,) could not move or draw a full breath without very much increasing the difficulty; the night was cold and fires all down; I studied my symptoms for a few minutes, and also reflected upon the length of time which must elapse, if I waited for fires to be built; then awoke my wife, saying do not be frightened, I have an attack of Pleurisy; you will get me a comforter, saucer, and the alcohol, and return to bed without disturbing any one; with persuasion, or almost compulsion, she did so; for she desired to build a fire and make a more thorough work of it; but I had made up my mind, and resolved to carry out the experiment upon myself, and now had the only chance. I arose and poured the saucer nearly full of alcohol, and set it on fire; wrapping the comforter around me. I sat down upon the chair, over it, and continued to sit until the alcohol was all burned out, and I in a most profuse perspiration: the pain and difficult breathing having nearly all subsided; I then returned to bed. the perspiration continuing for some considerable time longer, by retaining the comforter around me to avoid checking it as I returned to bed, during which time I again fell asleep. When I awoke in the morning I could just realize a little pain, or rather uneasiness, upon taking a full breath, but did nothing more, being very careful about exposure, however, through the day; but at bed time I took another alcohol sweat, and that was the last of the pleurisy.

Again: Mr. ——, a medical student rooming in the same house where I lived, awoke in the night, attacked with pleurisy the same as myself, after exposure; but as he was attending the lectures of allopathic professors, of course he must have one of them to attend him; one was called, three pints of blood were taken, colomel and antimony were freely given; and in about three or four days the disease gave way to time, or the treatment; but a calomel-diarrhea set in, and came very near terminating his life, and kept him from college and his

studies over six weeks; and he said if he was ever calomelized again, he would prosecute the doer to the end of his life, but he graduated in that school of medicine, and no doubt is now expecting to go and do the same thing. Choose ye your *servant.* Shall he be reason, with common-sense results, or shall he be silver-slippered fashion, with his health-destroying policy? It need not be argued that these were not parallel cases, for I had the pleurisy when young, and was treated in the fashionable style, and was constantly liable to, and had frequent attacks of it, during my earlier life.

In chronic cases, which sometimes occur, and frequently under other treatment, it will be necessary not only to use the foregoing treatment, but to add to it an emetic about once a week, alternating with the sweating process, with much external friction, occasionally, with the pepper and spirits, to hold the blood to the surface.

Since the first publication of the foregoing, I have seen a statement going the rounds of the "papers," that a bad case of burning had taken place in New York, by the alcohol process of sweating, calling it *new;* but it has been in use more than *forty* years; I have used it, I speak safely, more than a *hundred* times, and never before heard of its injuring any one; but still it is possible that some accident may have occurred in its use, or that some one has undertaken it who was not capable of prescribing; but if *calomel* could claim *one* year's use under its most accomplished prescribers with only one case of *injury,* I would say, let it be continued; but in place of one, it is *hundreds;* further comment is unnecessary.

But those who prefer, or from the absence of alcohol, or other necessities, can take "grandmother's plan," *i. e.,* place the feet into hot water, and drink freely of pennyroyal, sage, or other hot teas for fifteen or twenty minutes; then get into bed, continuing the teas for a short time, remaining in bed for a few hours; which, if commenced soon after the attack of colds, or even more severe diseases, will, in nine out of ten cases, not only relieve, but prevent days, perhaps weeks, of inconvenience and suffering.

Where there are complications of the substance of the lungs, you will find explanations under the next head.

3. Inflammation of the Lungs—Is usually, by physicians, called **Pneumonia,** from the Greek, *Pneumon,* the Lungs. It may involve the whole lung, on one or both sides, but is more generally confined to one side, and to the lower portion, than to the whole lung.

CAUSES.—Exposure to cold, wet, cold feet, drafts of air, especially if in a perspiration, recession of eruptive diseases, etc., and consequently more liable to come on in the winter, or cold, wet changes of spring, than at any other time; and upon those whose lungs are debilitated by previous attacks, or are predisposed to, or actually suffering under disease.

SYMPTOMS.—Inflammation of the Lungs, like other diseases of an inflammatory character, nearly always commences with a chill, soon followed by fever, more or less violent, according to which the severity of the case may be somewhat predetermined, unless of a congestive character; in which case, instead of a hot and fevered surface, there will be a cold, clammy feel to the hand, as well as unpleasant to the patient. There will be difficulty in taking full breaths, as well as an increased number of breaths to the minute, which in healthy persons is generally about twenty. Dull pain, with a tightness of the chest, short and perpetual hacking cough, scanty expectoration, which is tough, and sticks to the vessel used as a spittoon, and is more or less streaked with blood, or more like iron rust in color, and may have so much blood in it as to make it a brighter red. The pulse is variable, so much so that but little confidence can be placed in it. The tongue soon becomes dry and dark; but a dry and glossy tongue, with early delirium, are considered dangerous symptoms, that is, under "Old School treatment." But with our rational treatment we very seldom have a fatal termination, yet it is occasional, and really wonderful that it is not more frequent, when we take into account the neglect of some physicians and imprudence of many patients.

INDICATIONS.—As the blood has receded from the surface and centered upon the lungs, the indications are to return it to its original vessels, by judiciously applying heat and moisture, which is sure to relax their constringed condition, instead of cutting a hole and letting it run *out*, (bleeding,) which prostrates the patient and retards his recovery.

TREATMENT.—The treatment for Inflammation of the Lungs in recent cases, will be, at first, the same as for "Pleurisy," that is, to produce free perspiration—soak the feet in hot water while administering the "Alcohol Sweat," or Vapor Bath, as there directed, with the white-root tea and "Sweating Drops," for several hours, with bottles of hot water or hot bricks to the feet and sides, mustard-drafts to the feet also, as they can be borne; and after 6 or 8 hours, the "Vegetable," or other cathartic should be administered, and great care not to expose the patient to drafts of air during its operation, especially if in perspiration. If this course is faithfully persevered in, it will call the blood to the surface—prevent congestion of the lungs (unnatural accumulation of blood)—lessen the fever, ease the pain, and aid expectoration. But if the expectoration becomes difficult, and the disease should not seem to yield in from 8 to 12 hours at farthest, or by the time the cathartic has freely operated, then, or soon after, give the "Eclectic," or "Lobelia-seed Emetic," as directed under that head; and if called to a case which is already confirmed, it is best to *begin* with the emetic, then follow up as above directed in recent cases. An expectorant in confirmed (established) cases, will be needed. Let it be composed of tincture of lobelia, 1 oz.; tincture of ipecac, ½ oz.; tincture of blood-root, ¼ oz.; simple syrup or molasses, 2 ozs.; mix. DOSE.—One tea-spoon every 2 hours, alternately with the white-root tea and "Sweating Drops," except the first dose may be 2 tea-spoons. The case must then be watched carefully; and any part or all of the

treatment may be repeated, lessened, increased, or modified to suit returning or remaining symptoms.

Persons having this book in the house, and being governed by it, having also the leading medicines on hand, and commencing with this disease, or inflammation of any other organs, modifying the treatment by common sense, according to the remarks on "General Inflammation," will not have to repeat the course in one case out of ten.

In inflammation of the *stomach*, known by heat, according to the *degree* of the inflammation, drinks of slippery-elm water, or mucilage of gum arabic, etc., may be freely taken; and in inflammation of other organs, other modifications will be required; as for Dysentery, which is an inflammation of the large intestines, the "Injection" must be freely used, as also the perspiring processes, in all cases.

In chronic inflammation, the emetic should be given once a week; and some other time during the week, the sweating should be gone through also, with dry frictions to the whole surface, by means of a coarse towel, for fifteen to twenty minutes each time, twice daily; and if the feet are habitually cold, wash them in cold water and wipe them dry, at bed time, then rub them with a coarse cloth or the dry hand until they are perfectly warm and comfortable; and it may be expected that these long-standing cases will soon yield to this *rational* course.

FEMALE DEBILITY AND IRREGULARITIES.—It is a self-evident fact that the finer the work, and the more complicated a piece of machinery, the more liable it is to become deranged, or out of order; and the more skillful must be the mechanic who undertakes to make any necessary repairs.

Upon this consideration I argue that the system of the *female* is the finer and more complicated, having to perform a double work, (child bearing,) yet confined to the same or less dimensions than the male. And to perform this *double* function of sustaining her own life, and giving life to her species, it becomes necessary in the wisdom of God to give her such a peculiar formation, that between the ages of fifteen and forty-five, or the *child-bearing period*, she should have a sanguineous, monthly flow, called by various names, as monthly periods, menstruation, menses, catamenia, courses, etc., etc.

Why it should have been so arranged, or necessary, none can tell. We are left to deal with the simple fact; and it would be just as wise in us to say that it was *not* so, as to say there was no one who *planned* it, because we cannot see and fully understand the reason why it is so. This flow varies in amount from one to three, four, or five ounces, lasting from three to four or five days only when usual health is enjoyed. And as this book will fall into the hands of very many families who will have no other medical work for reference upon this subject, it will not be amiss for me to give the necessary instructions

here, that all may be able to qualify themselves to meet the exigencies (demand) of all cases. A day or two previous to the commencement of these periods, for the first time, an uneasiness often amounting to pain, in the parts, is felt, with sense of heaviness also in the womb—lying in the lower part of the abdomen.

Some females are very nervous at these periods, others have a flushed face, accompanied with dizziness and headache, sickness at the stomach, etc. In young girls these new feelings produce uneasiness for want of knowledge as to their cause and result, and should lead them to seek maternal advice and counsel, unless they have some book of this kind which explains the whole matter. And it would certainly be advisable, in all cases, for girls to not only seek such advice from the mother, or lady with whom they may be living, but be guided by it also. And although, with many girls there may be uneasiness in the mammæ, often amounting to real pain, yet no real danger need be apprehended; for these unpleasant sensations will continue and increase in severity, until in healthy young females there will be what is known as a "*show*," which will afford immediate relief, not from the quantity of the flow, at the first few periods, but from the fact that the organs peculiar to the female have accomplished their mysterious work. Ordinarily these periods begin at about fifteen years of age, some earlier or later even as much as a year, and sometimes more. With girls who take an active part in the labors of the house, freely romping, playing, etc., their health and strength becoming fully developed thereby, these periods come on a little earlier, and are more healthy and regular.

Allow me here to give a word of caution about taking cold at this period. It is very dangerous. I knew a young girl, who had not been instructed by her mother upon this subject, to be so afraid of being found with this show upon her apparel, which she did not know the meaning of, that she went to a brook and washed herself and clothes—took cold, and immediately became *insane*—remaining so as long as I knew her. Any mother who so neglects her duty to her child, in not explaining these things, nor by putting a work of this kind into her hands, runs the risk of injury to her daughter that may never be remedied, even with the best treatment, after the harm is done.

After this flow takes place, the unpleasant feelings usually subside, and the health again becomes good for the month, when all of the foregoing sensations recur again, with a larger flow and longer continued, recurring every four weeks, and is then called menses, etc., etc.

This function of the female system, from the fineness and complication of the structures, is very liable to become deranged in various ways.

It may be partially suppressed or entirly stopped, called *amenor-*

rhea; it may be painful or imperfect, *dysmenorrhea;* it may be very free or excessive, *menorrhagia,* (like hemorrhage, for the treatment of which see recipe for Uterine Hemorrhage, in another part of the book,); or it may be irregular in its recurrence and duration, or a continual glairy flow, which indicates an inflammation of the parts, *leucorrhea.*

But as this monthly flow is absolutely necessary to health, between these periods of life, say *fifteen to forty-five,* its suppression, painfulness, excessiveness, or irregularity, will soon produce general debility.

CAUSES.—The female organism is such that what affects the general system of the male much more frequently affects the organs *peculiar* to her system only. No reason can be given for it except the wisdom of the Creator, and the necessities of her construction. But this *debility* and *irregularity* are so interwoven together that what causes one must necessarily affect the other.

In the good old *grandmother-days,* when girls helped with the work of the household, warm but loose clothing, plain food, good thick-soled shoes, and absence of novels, to excite the passions, etc., such a thing as a feeble, debilitated woman or girl was seldom known; but now sedentary habits, stimulating food, every conceivable unphysiological style of dress, paper-soled shoes, checking perspiration, excitable reading, repeated colds by exposure going to and from parties, thinly clad, standing by the gate talking with supposed friends (real enemies) when they ought to be by the fire or in bed, all tend to general debility; and the real wonder is that there is not more debility than there is.

The very word *debility* shows plainly the leading symptom, weakness. She appears pale, especially about the lips, nose, etc., with a bluish circle about the eyes, which appear rather sunken; she feels dull, languid, and drowsy, stomach out of order, nausea, often with fluttering about the heart; the nervous system sometimes becoming so much involved as to bring on fits of despondency leading many to commit suicide. The feet and limbs frequently become swollen, restless in sleep, often craving unnatural food, as clay, soft stones, etc. There may also be a sensation of bearing down, or even *falling* of the womb, as it is called, (prolapsus uteri,) which is much the most common among the married. The bowels are usually costive, often griping pains, which cause much suffering. Pains in the head and back also; but instead of being looked upon as unfavorable, they rather show that nature is trying to accomplish her work, and needs the assistance of *rational* remedies.

It is not to be supposed that every patient will experience all of these symptoms, at one time, or all of the time, but they commence as pointed out, and if allowed to go on without proper correction, they

will increase in severity until they may be all experienced in a greater or less degree.

INDICATIONS.—The symptoms indicate (point out) the treatment; that is, if there is debility, tonics are required; paleness shows that the blood has become deficient in iron; and the softness of the flesh indicates that a more nutritious diet is needed. The dullness and drowsy languidness indicate the necessity of out-door, active exercise. Travel, or agreeable home company, to ramble over hill and dale, resting as often and as long as may be necessary, not to tire, but sufficient to create an appetite and aid digestion—using, once a week, any gentle cathartic to move the bowels once or twice only at each time, with the "*Tonic Wine Tincture*," given in another part of this work, or the *iron* and *ginger*, given below, as deemed best or most convenient to obtain.

In cases of *inflammation* of these organs, known by a glairy flow, cooling and astringent injections are called for, both as an act of cleanliness, as also of cure. In cases where the womb has fallen—settled low in the pelvis—the necessity is shown for a pessary support, until the general treatment relieves the difficulty. Costiveness points out laxatives, whilst nature's efforts, shown by pains in the head, back, etc., call for the whole general remedies above pointed out; and which shall be a little more particularized in the following:

TREATMENT.—For the weakness and general debility of the patient, let the "Tonic Wine Tincture" be freely taken in connection with iron, to strengthen and invigorate the system; beth-root, (often called birth-root, Indian balm, ground lily, etc.,) the root is the part used, Solomon's seal and colombo, spikenard, comfrey, gentian, the roots, with camomile flowers, of each, 1 oz.; with a little white-oak bark, may be added to the *wine tincture*, to adapt it to these particular cases, taking a wine-glass, if it can be borne, from 3 to 5 times daily Domestic wine can be used in place of the Port, in making the tonic wine tincture.

1. A very good way to take iron, is to go to a blacksmith and have him take a piece of nail-rod, a foot or two in length, and heat it, letting it cool in the cinders of the forge, which softens it; then have him file it all up for you, saving the filings on a piece of paper, with which filings mix as much ground ginger, rubbing them thoroughly together. DOSE.—Half of a tea-spoon three times daily, in a little honey or molasses. The natural action of the iron upon the system will be to make the stools dark, or nearly black, so do not be fearful about that condition; for, without it, we should not be sure of the desired action of the iron. Let the use of the iron be kept up for two or three months at least, or until health is obtained.

In places where it may be difficult to get the iron filings, given in No. 1, the sweet liquor of the protoxide of iron, kept by druggists, the technical name of which is *Liq. Ferri Protoxide Dulc.*, may be used in place of that, a dose of which will be about one tea-spoon

three times daily, just after meals. I have prescribed this preparation with very great success, continuing its use, in one very bad case, nearly a year.

With the above treatment, let there be a warm bath taken, once a week, putting into the water a quart or two of weak lye, made by putting a fire-shovel or two of wood ashes into the water and stirring up well, and let stand a while, then pour off into the bathing water. Castile soap will do about as well, but common soap is not as good. Wash well, and wipe off the water from the body, then with a dry coarse towel have some one to rub the whole body and limbs briskly until the surface glows with warmth and comfort.

For diet, moderate quantities of broiled pork, broiled beef, baked beef or mutton, wild game, etc., baked or broiled, with bread baked at least the day before, roast or baked potatoes, with but little butter, unless very nice, or just made, then, not very freely. This treatment, and diet, will soon overcome the softness of the flesh, and give strength for the necessary exercise, which will remove the dullness and drowsy, languid feelings. The exercise may be labor about the house, but better to be out of doors, as gardening, romping, swinging, singing and riding, or running, when it can be borne, with agreeable company, travel, etc. The following pill will be found a gentle and excellent cathartic, or laxative:

2. Female Laxative Pill.—Aloes, macrotin, and cream-of-tartar, of each, 2 drs.; podophyllin and ground ginger, 1 dr. each; make into common sized pills by using oil of peppermint, 15 to 20 drops, and thick solution of gum arabic mucilage. DOSE.—One pill at bed time, or two if found necessary, and sufficiently often to keep the bowels just in a solvent condition, but not less often than once a week.

If the aloes should not agree with any, they may use the following.

3. Female Laxative and Anodyne Pill.—Macrotin and rhubarb, of each 10 grs.; extract of hyoscyamus, 10 grs.; Castile soap, 40 grs.; scrape the soap, and mix well together, forming into common sized pills with gum solution, as in the above recipe. DOSE.—One pill, as the other, or sufficiently often to keep the bowels solvent, but not too loose. The hyoscyamus tends to quiet the nerves without constipating the bowels.

Some females are always troubled with pains, to a greater or less degree, in the commencement of these periods, and some through the whole period. The following pill will be found very soothing and quieting to the nervous system of all such persons:

4. Pill for Painful Menstruation—Anodyne.—Extract of stramonium and sulphate of quinine, of each, 16 grs.; macrotin,* 8 grs.; morphine, 1 gr.; make into 8 pills. DOSE.—One pill, repeating once or twice only, 40 minutes to an hour apart, if the pain does not subside. If the pain subsides, there is no need of repeating the dose.

* NOTE.—Macrotin, podophyllin, etc., are kept by all Eclectic physicians, and should be kept by all druggists.

The advantage of this pill is that costiveness is not increased, and pain *must* subside under its use.

5. Tea—Injection for Leucorrhea.—In cases of leucorrhea which continue any length of time, the following decoction will be found very valuable as an injection:

The inner bark of the common hemlock tree, and the leaves and bark of the witch-hazel, sometimes called spotted-alder, an ounce of each, will make a quart of the decoction, a little of which, with a female syringe, should be injected, morning and evening, while in a recumbent position.

If the case does not yield to the above in a few days, then use a little of the following, in the same way:

6. Injection for Leucorrhea.—White vitriol and sugar of lead, of each, 10 grs.; common salt, loaf sugar and pulverized alum, of each, 5 grs.; soft water, 1 pt. Simmer all over a slow fire for ten or fifteen minutes; when cool, strain and bottle, keeping well corked. When desired to use, pour out about half as much as needed, and put an equal amount of soft water with it, and inject, as of the above. It may be reduced with more soft water if there should be sufficient inflammation to cause much uneasiness. A little uneasiness is expected, however, and necessary.

7. In cases of permanent falling of the womb, a good pessary may be made of a piece of fine, firm sponge, cut to a proper size to admit, when damp, of being placed in the *vagina*, to hold the womb to its place. The sponge should have a stout piece of small cord sewed two or three times through its center, and left of sufficient length to aid in its removal, morning and evening, for the purpose of cleansing it, using the necessary injections, etc. After having injected either No. 5 or 6 of the above, as thought preferable, the sponge having been thoroughly washed and pressed dry, it will be again introduced sufficiently high to hold the womb in place. Remembering, however, in almost all of these cases of falling of the womb, that the patient will find it necessary to keep the bed until well, or very much relieved.

One thing is very evident in these cases of debility, the blood is deficient in iron; consequently that article should enter largely into any medicine intended for its relief; and in *most* cases the iron filings and ginger, or the sweet liquor, will be found, continued for two or three months, all the medicine required; and the iron must not be omitted in any case whatever. Iron is the *main-spoke* in these female wheels, and very valuable in general debility of males as well as females.

For real hemorrhage, which may be known by the coagulation (clotting) of the blood, as the menstrual flow does not coagulate, see "Uterine Hemorrhage," or the "Styptic Balsam," but for profuse or long continued flowing or wasting, use the following:

8. Powder for Excessive Flooding.—Gums kino and catechu, of each, 1 dr.; sugar of lead and alum, of each, ½ dr.; pulverize all, and

thoroughly mix, then divide into 7 to 10-grain powders. DOSE.—One every 2 to 3 hours, until checked; then less often, merely to control the flow.

If any female, into whose hands this book shall come, will carefully study and use the foregoing rational remarks and prescriptions, and is not an hundred times better pleased with the results than she would have been by calling half of the physicians of the day, I should be very much disappointed, and I would be sure that the remedies did not have their common effects, which, I feel, will not be the case, from the great good they have already done, many times. Besides, they save the delicacy of exposures, in many instances; and they will always save the delicacy of conversing with and explaining their various feelings and conditions, to one of the opposite sex. So highly important is this fact, that the information should become general—every girl, old or young, ought to be furnished with "Dr. Chase's Recipes," and also receive all the additional instruction that a mother's *experience* can give her.

APPENDIX TO MEDICAL DEPARTMENT.

BY THE PUBLISHER.

APOPLEXY.—It is a sudden deprivation of all the senses, and of voluntary motion, generally the effect of compression of the brain; which, when produced by an effusion of blood, or a distention of the internal vessels of the head, from an accumulation of blood, is termed *Sanguineous Apoplexy;* and when caused by an effusion of *serum*, which occurs chiefly in dropsical habits, *Serous Apoplexy.*

Apoplexy—Sanguineous.—The short necked, the indolent, great eaters, and great drinkers, are its victims! The fit is generally preceded by a sense of weight in the head, and giddiness; frequent headache; bleeding at the nose; redness of the eyes; imperfect vision; ringing in the ears; numbness in the extremities; weakness of the knees; faltering of the voice; drowsiness, and disturbed sleep. It is brought on by whatever hurries the circulation, so as to increase the afflux of blood into the vessels of the head; such as violent exercises; passions of the mind; much straining; whatever impedes the free return of blood from the head; as a tight ligature, or handkerchief around the neck; or lying with the head lower than the chest.

If the fit has lasted long, *i. e.*, two or three days; if the breathing is very laborious and loud; if the patient is far advanced in life; it is probable that the disease will prove fatal. A second attack is always of more danger than a first; and when apoplexy comes upon a patient who has had frequent attacks of epilepsy, it very commonly proves fatal.

TREATMENT.—Remove the cause, that is, pressure upon the brain, —apply blisters to the head, and also between the shoulders—and lessen the determination of the blood to the head by increasing the circulation in the extremities, *i. e.*, stimulating the feet and hands by mustard poultices, and by emptying the lower intestines by a clyster made of epsom salts, castor oil, salt and aloes. Also give sudorifics, or medicines to promote sweat. If the attack takes place soon after a full meal, an emetic should be given—lobelia. Keep the body nearly in an erect posture to promote the return of the blood from the head.

Apoplexy—Serous.—Compression of the brain, producing apoplexy, is seldom caused by an effusion of the serous part of the blood. When it occurs in a dropsical person, it may be referred to an effusion of serum, which will require the aforesaid means. Cordials are proper and may be given. It is in consequence of extreme debility of the system, and generally terminates in death. Give emetics of ipecacuanha and tartarized antimony, blisters to the head, mustard poultices to the legs and feet, sharp purges, diffusive stimulants of ammonia, castor oil, assafœtida, valerian, and electricity passed through the head.

PREVENTION OF APOPLEXY.—Avoid intoxicating drinks, keep the feet dry and warm, take plenty of exercise, eat sparingly, sleep

ith the head higher than the trunk, prevent constipation, wash the ead and sponge the chest every morning in cold water.

For the treatment of apoplexy, the following hints have been llected from the works of the most eminent physicians:

Remove all compression from every part of the body; immerse ie legs in warm water and mustard for 10 minutes, applying friction ; the same time; bathe the whole surface with the diluted tincture of ayenne; avoid bleeding; put a mustard plaster between the shoul- ers; if possible, let a brisk purgative be administered, for evacuation necessary to unload the bowels and stomach, and therefore the ressure on the brain. Blood-letting in apoplexy aggravates the cere- ral congestion. Prof. Recamier says, "I have not the least evidence iat blood-letting has the smallest power to diminish the violence or uration of an apoplectic paroxysm; nay, I have every reason to elieve that it so far weakens the powers of reaction as to prove fatal, greatly to retard the cure." Apply cold water to the head, and hot ater to the feet, if slight symptoms begin to appear. At first do it ightly, and increase the application gradually. This will force back ie blood from the upper to the lower extremities through the heart, nd remove the disease. The whole secret of treatment consists in ualizing the circulation.

ASTHMA.—This disease is well known. It manifests itself in mporary fits of difficult breathing, is accompanied with wheezing, ough, a sense of suffocation, and constriction of the chest. The *use;* hereditary predisposition; cold and moist atmosphere; sudden anges of temperature; intense study; suppression of long accus- med evacuations; certain fevers; irritation of the air cells of the ngs, by aerial acrimony, or other causes; irritation of the stomach, c., etc.

When this disease is attended with expectoration, it is called *umoral asthma;* and when there is no discharge, it is named *dry sthma.* It is remarkable, that what will excite the disease in one atient, will often prove a means of relieving it in another. This eculiarity is shown in the eight pair of nerves, branches of which go the lungs and stomach. When these branches are in a state of mor- id excitement, or irritation, the muscles concerned in conveying air om the lungs become contracted so as to limit the expansion of the hest, and by retarding the circulation of the blood through the lungs, ie blood becomes surcharged with carbon, causing a dark appearance f the lips, etc.

Asthma may be distinguished from pulmonary consumption, by ie former being attended not only with fits of difficult breathing, but ith violent fits of suffocation; whereas, in consumption the patient as only shortness of breath on motion. Asthma also more generally ttacks persons in advanced life.

If the system is much debilitated, so that swelling of the legs, reat oppression of breathing, and florid countenance, are predom- ant symptoms, a more powerful tonic is requisite:

Tincture of rhatany, 6 ozs.; ammonia, 2 scrs.; compound spirit f juniper, 2 ozs.; tincture of squills, ½ oz. Mix. Three table- poons to be taken every 4 hours, with the following pills:

Precipitated iron, 2 grs.; extract of hemlock, 3 grs.; gum ammo- iac, 4 grs.; oil of anise-seed, 2 drops. Mix, and divide into 2 or 3 ills.

Keep the bowels open by any of the aforementioned aperients. ut if the patient is affected with diarrhea, a frequent attendant on

the last stage of this malady, the following may be substituted for the preceding tonic mixture:

Compound tincture of rhatany, 1 oz.; lime water, 6 ozs.; laudanum, 30 drops. Mix. Three table-spoons to be taken every 3 hours; if it does not restrain diarrhea, add to the above 1 or 2 ounces of decoction of logwood.

Should a distressing pain affect the integuments of the head, or the back of the head, a small blister will give relief.

Or, take ammoniated tincture of valerian, 2 drs.; tincture of castor, 1 dr.; laudanum, 30 drops; camphor mixture, 1 oz.; syrup of tolu, 1 dr. Mix. This is most valuable for spasmodic affections.

Asthma—Treatment of.—For its cure or relief, the following articles are first-rate remedies: Assafœtida, black byrony, butter-bur, chervil, coffee, colt's foot, foxglove, garlic, horse-radish, lobelia in 2 places, meadow saffron, hedge mustard, myrrh, thorn apple, thyme, and skunk cabbage.

The smoking of *stramonium*, known as *thorn apple*, is particularly recommended, the vapor, if possible, should be inhaled. It wonderfully allays morbid irritability, and the caloric which is taken with it, during the operation of smoking, powerfully promotes the secretion of mucous, and thus often speedily terminates the fit. If the patient is unable to smoke it, the vapor of a strong decoction of it may be inhaled, by breathing over it as soon as it is taken off the fire. Boil an ounce in a pint of water; as soon as it boils, take it off the fire; it should be made in a close vessel.

Hedge hyssop is an excellent remedy. It powerfully allays the morbid irritation of the lungs, promotes expectoration, obviates costiveness, strengthens the stomach, and increases the secretion of urine, and perspiration of the skin. A strong decoction of it, combined with carroway, or anise-seed, is the best form of administration.

Before and during the fit the patient should immerse his feet in warm water, and drink warm simple beverages, as balm tea, barley water, etc., with 2 or 3 tea-spoons of æther, or of aromatic spirit of ammonia. Whatever tends to quiet the nervous system, is of the greatest service; though active remedies should be applied with the greatest caution. Washing the head with warm water has been of very great service; and sometimes sneezing, produced by snuff, made of asarabacca, has suddenly terminated the paroxysm. If the chest be much pained, foment with hot flannels, or apply a bran or oatmeal poultice. Very strong coffee is much recommended if the attack is violent; combine with it 10 or 15 drops of laudanum, ½ dr. of æther; and 2 drops of oil of mint. This mixture may be taken several times during the day. The following pills are valuable in asthma:

Ipecacuanha powder, 6 grs.; James's powder, 12 grs.; camphor, 15 grs.; extract of henbane, or syrup, to form into 10 or 12 pills. One or 2 may be taken every hour, or less frequently.

Asthmatics are very subject to an accumulation of inflammable air in the intestines which renders an aperient necessary. Distension of the stomach or intestines from any cause is a source of great distress to the patient, by mechanically preventing the motion of the diaphragm.

Therefore take of compound colocynth pill, 1 dr.; prepared calomel, 8 grs.; assafœtida, ½ dr. or more. Divide into 15 or 20 pills; take 2 or 3 occasionally. But probably the best aperient is castor oil, given in peppermint, or weak brandy and water.

To hasten the termination of the paroxysm, rubbing the scalp

with camphorated sal volatile, and immersing the feet in warm water are often useful. Vomiting excited in the evening, will sometimes, by unloading the stomach, promoting expectoration, and increasing perspiration, prevent the accession of a paroxysm. For this purpose, take 20 grs. of ipecacuanha powder:

Or, ipecacuanha powder, 15 grs.; sulphate of zinc, 4 grs.; oxymel of squill, 2 drs.; peppermint water, 1 oz. Mix:

Or, tincture of lobelia is good in obstinate cases. DOSE.—1 dr.

Lobelia is now declared by the most eminent physicians to be the *king* of all remedies for asthma. I shall now subjoin a few other remedies, and some advice, the value of which has been confirmed by my medical experience, and that of others.

Ether is a good remedy during the fit. Dr. Graham directs its use thus: "Heat a common tea-pot with boiling water, let it stand 3 or 4 minutes; pour the water entirely out, and then put 1 or 2 tea-spoons of ether into the pot, close the lid, and inhale the fumes through the spout in the mouth, breathing in that way for several minutes. Strong brandy and water, and gin and water, have been found very serviceable *during the fit*, especially the latter, with 2 or 3 drops of the oil of juniper added.

The following recipes for asthma have been found very useful:

Take of the milk of gum ammonia, 6 ozs.; syrup of squills, 4½ ozs. Mix. A spoon to be taken when relief is required. It promotes copious expectoration.

Or, gum ammoniac, 1 dr.; gum assafœtida, squill pill, of each ½ dr.; oil of cinnamon, 6 drops; form into 24 pills, with common syrup. Take twice a day.

Or, powdered senna, 1 oz.; flour of sulphur, ½ oz.; powdered ginger, 2 drs.; powdered saffron, ½ dr. Size of a nutmeg to be taken night and morning, in treacle or honey. Or 2 ozs. of best honey, and 1 oz. of castor oil mixed. A tea-spoon or 2 to be taken night and morning.

Carroway and sweet fennel seeds, of each ½ oz.; boil in a pint of vinegar about 20 minutes; take it off the fire, and add 3 ozs. of sliced garlic. Cover up, and when cold, squeeze and strain, and by gentle heat, mix with it 1¼ lbs. of good honey. A tea-spoon or 2 to be taken night and morning.

To relieve the breathing, steep some blotting paper in a strong solution of saltpeter; dry it, and light a portion when going to bed, lay it on a plate. Many have experienced much relief from this.

Asthma.—The Rev. John Wesley recommends the following:

A pint of cold water every morning, and wash the head in cold water, and using the cold bath once in 2 weeks; or, a decoction of liquorice often gives relief; or, ½ pt. of tar water twice a day; or, *live a fortnight chiefly on boiled carrots.* It SELDOM FAILS. Many have been cured by this diet; or, take from 10 to 60 drops of elixir of vitriol, in a glass of spring water, 3 or 4 times a day; or, in a qt. of boiling water, put a tea-spoon of balsamic ether;* receive the steam into the lungs, through a fumigator, twice a day; or, vomit with warm water, and always keep the body open.

To prevent a return of a Fit of Asthma, or to relieve Asthma.—Keep the bowels gently open with rhubarb, or some other mild aperient, and strengthen the tone of the stomach by bitter infusions, as

*Balsamic Ether is made thus: Put 4 ozs. of spirits of wine, and 1 oz. of balsam of tolu, into a phial, with 1 oz. of Ether. Keep it well corked. It will not keep over a week or two.

camomile, gentian, and quinine. When the chest is constricted, apply mustard, or blistering plasters, and take an emetic occasionally to clear out the phlegm from the bronchial passages; avoid everything difficult of digestion; wear flannel next to the skin; avoid a bleak, damp air, easterly winds, and take constant exercise. An animal diet, rather light, is preferable to a vegetable diet.

Asthmatic Cough.—Take Spanish liquorice, 2 ozs.; salt of tartar ½ oz.; boil the liquor in 3 pints of water to a quart; add the salt to it when it is blood warm. Drink 2 spoons of this every 2 hours. It seldom fails. I have known this to cure an inveterate moist asthma.

ATROPHY.—The word is derived from the Greek *a*, not, and *trophe*, nourishment; *not nourishment*, and the want of that nourishment induces emaciation, and loss of strength. The *symptoms* are a gradual consuming or wasting away, impaired digestion, loss of appetite, depression of spirits, and general languor; in the latter stages hectic fever, cough, and difficult breathing. In young persons of scrofulous habit, there is enlargement of the mesentreic glands, indigestion, costiveness, or diarrhea, uncertain appetite, flushed or palid cheeks, remittent fever, swelling of the abdomen, emaciated limbs, and eruptions of the skin on the shoulders, arms, and thighs, etc. I have seen the vessels so attenuated as to be scarcely able to contain the blood, and in some cases, the smaller ones congested.

The *cause* may be hereditary, damp houses, rooms, and beds, unwholesome foul air, close and bad ventilated sleeping rooms, excessive evacuations, worms, mental anxiety, excessive indulgence in venery, or spirituous liquors. It is induced in females by giving suck too long.

TREATMENT.—Many diseases are accompanied by atrophy to a greater or less extent. In those cases, therefore, it is but an effect of a disease, and that disease must be prescribed for. There are cases, however, in which the most careful and repeated scrutiny fails to detect any serious disease of the vital organs, though some important viscus may be affected. If the glands are affected, apply the tincture of iodine, by means of a camel hair brush, or the ointment of the same. The following formula has been recommended:

Iodine of potassium, 1 dr.; compound infusion of gentian, 6 ozs. aromatic spirit of ammonia, 2 drs.; mix, and take a table-spoon 3 times a day; with the following aperient at bed-time:

Compound rhubarb pill, 4 grs; sulphate of quinine, 4 grs.; cayenne pepper, 2 grs.; make into 3 or 4 pills.

In this disease, fresh air should be obtained, and abundant exercise in the open air. Keep the bowels regular, and always combine a tonic with a purgative. The diet must be light and nutritious. If the disease arises from a venereal taint, (alas! how many monstrous parents thus infect their children!) then sarsaparilla will be useful. The same course will, in a great measure, be applicable to *atrophy*. If the disease proceeds from worms, then anthelmintics must be administered.

Sometimes atrophy is produced by suckling too long, which must be abandoned, or it will cause wasting, and ultimately consumption. The child should be weaned immediately, and out-door exercise in a pure atmosphere, and a course of tonics should be taken immediately.

ABDOMINAL RUPTURES, OR HERNIA, take place at the navel, in females, and the scrotum and groin in males. When the bowel lies quietly in the bag, and admits of being readily put back into the abdomen, the rupture is termed *reducible;* but *irreducible*

when the contrary. A hernia is strangulated when the intestine is, as it were, tied round with a string, so as to prevent the contents of the bowels from passing off; in such a case, inflammation is excited, and alarming, and sometimes fatal, symptoms, are manifest.

The causes of rupture are various; viz., *sedentary habits*, violent exercise, such as *feats of agility, jumping, running, lifting and carrying heavy weights, vomiting, straining, laughing, sneezing*, and whatever induces extreme action of the abdominal muscles. Some parts of the parietes, or enclosure of the bowels, are naturally weaker than others; especially the inguinal and crural rings, and the umbilicus; and it is of these parts that hernia most frequently occurs; or the abdominal walls may be defectively formed. When a hernia takes place suddenly, there is a sensation of something giving way at the part, and some pain; but in many persons it comes on gradually, and almost imperceptibly, particularly in very debilitated constitutions.

The general symptoms of a hernia, when reducible and free from strangulation, are an indolent tumor at some point of the abdomen, frequently descending out of the abdominal ring, or out of the navel, but occasionally from other situations. The swelling often arises suddenly, and is subject to a change of size, being smaller when the patient lies down on his back, and larger when he stands up or holds his breath. It frequently diminishes when pressed, and grows large again when the pressure is removed. Its size and tension often increase after a meal, or when the bowels are flatulent. In consequence of the unnatural position of the bowels, many persons who have rupture are occasionally troubled with colic, costiveness, and vomiting. But sometimes the functions of the intestines suffer little interruption.

But in all cases ruptures are troublesome and dangerous, and therefore ought to be attended to in time. When a rupture is reducible, return the protruded parts to their original cavity, by gently pressing the projecting tumor, which can be best effected when the patient is lying on his back, with the legs bent, so that the knees may be erect; an attitude which he should always preserve as much as possible. An injection should be given made of gruel, butter, salt, and five or six drops of laudanum. Folds of linen dipped in ice-water should be placed upon the tumor, and renewed every fifteen minutes. Ice also may be applied with good effect. If the case has been delayed too long, use flannels dipped in a warm decoction of bitter herbs, as tansy, wormwood, horehound, and hops; these herbs tend to soften the tumor, and facilitate its return. Change the flannels frequently.

Infants are often subject to umbilical hernia, or rupture of the navel. It is cured by applying a proper bandage or truss, which, with increasing strength, effects a cure. Particular attention should be paid to the cure of female infants that are ruptured; that they may be free from the complaint when they become adult and pregnant; for then it often recurs from the too great distension of the abdomen, etc. During pregnancy, it is often troublesome, but after parturition, if the contents have not contracted any adhesion, they will often return into the abdomen, and may be kept there by a proper bandage. Females subject to umbilical rupture, should keep their bowels unconstipated, especially if the navel rupture be *irreducible*; and they should avoid indigestible food.

When the tumor is returned, it should be kept in its place by a bandage or truss. By the permanent pressure of a truss upon the opening, the parts are prevented from descending, and a permanent

cure is often effected. A truss may be obtained at a surgical instrument maker's.

Dr. Beach, an eminent physician, states: "Most of the cases of strangulated hernia for which an operation is performed, might be cured by proper treatment. In very many cases, where an operation has been proposed, the patient has recovered by very simple means. I have been called to some, where, at first view, it has seemed impossible to return the protruded viscera without cutting down and dividing the stricture; and yet, by prompt and energetic means, I have succeeded in reducing it." The following directions are founded upon the American practice:

Commence the treatment by giving a dose of castor oil; avoid strong and irritating purgatives. Use injections of an oily nature, as *Lobelia inflata*, a sufficient quantity; infuse in ½ pt. of hot water, to which add as much milk and treacle, and a gill of olive or sweet oil. Repeat every hour. This is one of the most powerful relaxants that can be used in this disease.

The following *external applications* are recommended by Dr. Beach:

Steam and foment with bitter herbs (herbs before mentioned) Put the decoction in a tub or pail, and sit over it by means of a narrow board put across it. Place a blanket over the patient. This will cause perspiration, and reduce the inflammation. In extreme cases a warm bath should be taken for some time. An alkaline poultice may be applied over the rupture. Mix the slippery elm bark with weak lye, until a poultice of a proper consistence is formed, to be applied tepid, and often renewed. The best effects have been produced by this application.

Dr. Reese, of New York, uses the *sulphuric ether* for the reduction or return of hernia. He wets the tumor with the liquid, and then, in order to produce speedy evaporation, blows upon it with a pair of bellows. He states that he has reduced a number of strangulated hernia by this method alone, when they had been doomed to undergo an operation. While these means are being used, manual aid must be used, called *taxis*, (meaning the replacement of the parts by hand.) The position of the patient requires care and skill. His legs and buttocks should be elevated as high as possible, forming an angle, if possible of 45 degrees. This may be effected by placing the back part of a chair underneath him. His thighs and body should be a little flexed or bent, in order to relax the muscles. The tumor should then be seized and moderate pressure made, in order to return the viscera

The constant application of a solution of alum in a strong decoction of oak bark—two drachms to a pint—has been recommended by some surgeons for the radical cure of rupture in the groin. It is applied by means of soft linen, which should be wetted as soon as it becomes dry. In incipient cases this topical remedy, by constringing the parts, may succeed in preventing the escape of the intestine or omentum through the abdominal ring. The compress should for some time be kept on the part, by a bandage or truss with easy springs.

AGUE.—The cause is debility; frequently *marsh miasma*, or the effluvia arising from stagnant water in pools, or on marshy ground. On the attack, the patient should be placed between blankets, and partake freely of water-gruel or barley-water. From 20 to 30 drops of laudanum, or more, should be given just before the commencement of the ague fit. The nails turn blue just before the fit begins. The fit may be moderated also by taking 1 scru. of the carbonate of ammo-

nia, 8 grs. compound powder of ipecacuanha, mint-water, 1½ ozs. Peruvian bark, or sulphate of quinine, is an efficacious remedy. An emetic before taking it is necessary; about 20 grs. of ipecacuanha powder; then take a small dose of salts and senna, and the Peruvian bark in powder; an ounce will make eight doses, one of which should be taken every hour or two. Or, instead of the Peruvian bark, take from 2 to 4 grs. of quinine, with 1 gr. of extract of gentian, made into pills. When the disease is arrested, continue the use of the pill, taking two per day for a few weeks.

Ague.—Take 30 grs. of snake-root, 40 of wormwood, ½ oz. of Peruvian bark powdered, and ½ pt. of Port wine. Put the whole into a bottle, and shake it well together; divide it into four equal quantities, and take it the first in the morning, and the last at night, when the fit is over. The dose should be often repeated, to prevent a return of the complaint. Or, when the fit is on, take an egg beaten up in a glass of brandy, and go to bed immediately.

WHITLOW, OR FELON.—This is an inflammation of the fingers, thumb, or hand, and is very painful. It is often situated at the root of the nail. The pain is attended with throbbing, swelling, and inflammation. It gradually progresses to suppuration.

Steam the whole hand with bitter herbs for 30 or 40 minutes; bathe it frequently in strong hot lye water. The steaming must not be dispensed with. Apply a poultice of linseed and and slippery elm, with a little salt and brandy. The formation of matter is indicated by a small white spot in the center of the swelling. When this appears, open it with the point of a large needle or probe, that the matter may escape. Repeat, if necessary. If proud flesh appears, apply the vegetable caustic or chloride of potass, diluted. A poultice of powdered hops is very effectual to relieve pain. Attend to the general health, by giving aperients, tonics, and nutritious, cooling diet.

Whitlow.—Cut a hole in a lemon, and wear it on the finger like a thimble; the whitlow must be encased in the lemon. See "Felon."

STOMACH, SPASMS OR CRAMP OF.—This painful and alarming state may proceed from various causes: such as the sudden application of cold, or it may arise from indigestible fruits or food, from bile regurgitating into the organ, from congestion of the liver, from gout or rheumatism, and, finally, from a draught of cold water when the body is heated, or from swallowing pieces of ice. A hot bath, or warm fomentations, are generally the best external remedies for spasm of the stomach, and an emetic the most useful and effective internal means, followed by such after-treatment as the exciting cause seems to justify or demand.

BLADDER, INFLAMMATION OF.—It manifests itself by pain and tightness in the lower part of the abdomen; the pain increases by pressure, there is a constant desire to pass urine, and great difficulty in passing a few drops; sometimes there is complete retention; the bladder may become enlarged, caused by the inflammatory action. In old people the chronic form occurs, and it is frequently caused by stone. In the decline of life, the common symptom is the difficulty of making water.

In painful retention of urine, hot fomentations of herbs, as hops, wormwood, tansy, camomile flowers, and a little valerian root, may be applied over the region of the bladder. Use also the warm foot-bath. Parsley tea with a little spirits of nitre and *best* gin may be taken. Take also the *Diuretic Infusion*, which see. Should these fail, use the

hip-bath, temperature from 86 to 96, for half an hour; take also a table-spoon of castor oil, and, if the pain is severe, 12 drops of laudanum. Warm injections are also serviceable. Add to the injections a little tincture of lobelia.

The following is an excellent remedy in affections of the bladder, particularly in old age:

Solidified copaiba, alcoholic extract of cubebs, equal parts. Mix and make into three or four grain pills, and give one or two 3 times a day. It has been known to act like a charm. It is invaluable in all urinary affections, and especially those which affect old people. It allays pain and irritation about the neck of the bladder, of the prostrate gland, and in the kidneys. In case of extreme pain apply the Irritating Plaster (which see) over the pubic region.

To strengthen the bladder, avoid all intoxicating drinks, exposure to wet, damp, and cold; sponge the lower parts of the abdomen with salt and water, and occasionally with vinegar. See "Urine," or "Urinary."

CURE FOR BURNS.—Of all applications for a burn we believe that there are none equal to a simple covering of common *wheat flour.* This is always at hand, and while it requires no skill in using, it produces most astonishing effects. The moisture produced upon the surface of a slight or deep burn is at once absorbed by the flour, and forms a paste which shuts out the air. As long as the fluid matters continue flowing, they are absorbed and prevented from producing irritation, as they would do, if kept from passing off by oily or resinous applications, while the greater the amount of those absorbed by the flour the thicker the protective covering. Another advantage of the flour covering is, that next to the surface it is kept moist and flexible, it can also be readily washed off without further irritation in removing. It may occasionally be washed off very carefully when it has become matted and dry, and a new covering sprinkled on.

Remedy for Burns and Scalds.—Take chalk and linseed or common olive oil, and mix them in such proportions as will produce a compound as thick as honey; then add vinegar, so as to reduce it to the thickness of molasses, apply with a soft brush or feather, and renew the application from time to time. Each renewal brings fresh relief and a grateful coolness. If the injury is severe, especially if it involve the chest, give 10 drops of laudanum to an adult, and repeat it in an hour, and again a third time; to a child of ten years, give in like manner only three drops, and beware of giving any to an infant. This plan, with an internal stimulant, according to age, as brandy or sal-volatile, or both, should be at once adopted until the arrival of the medical attendant.

Lime water beaten up with sweet oil makes an excellent application for burns.

Burns and Scalds.—See Spanish Flies.—If the clothes have caught fire, wrap the person in a shawl, coat, blanket, etc., very tightly, to extinguish the flames; or when these are not at hand, roll the person on the floor. Then gently disengage the clothes from around the burned surface. If any parts of the dress should stick to the burned part, do not remove them, but cut the clothes from around that part. The treatment for burns is applicable to scalds. *If the injury is merely superficial*, saturate a piece of cotton wool, or wadding, etc., with tincture of Spanish flies, *largely diluted with water*, and apply it over the burned or scalded part, and cover it with folded cotton or linen, etc., to exclude the atmospheric air. Saturate with the liniment as the

cloth dries. *If the wound is deep*, use the arnica lotion, instead of cantharides. When the burning pain ceases, apply simple cerate spread on a linen rag, and cover well up. Liniments are better than lotions, as they contain soap dissolved in spirits of wine, both curative of burns, etc. The arnica lotion may be obtained from any Homeopathic chemist.

When the afore-mentioned liniments are not at hand, cotton wool, or a linen rag may be well saturated in oil and soap lather, and applied.

"A most primitive, yet very effectual remedy in the treatment of burns and scalds is *cow-dung*; and from its being so rich in phosphorus, it must exert a specific, and a mechanical action to cure injuries resulting from fire."

Apply a poultice of elm bark and milk, and when the inflammation has left, apply black salve. For very slight burns, the black salve alone will cure. The slippery elm poultice is a sovereign remedy and has effected the greatest cures. Dr. Beach relates the case of a girl dreadfully scalded by falling into a large pan of boiling water, which scalded, and actually burnt or disorganized the parts from the back nearly to the feet. A poultice of slippery elm bark, and olive oil alone, very soon arrested the inflammation and acute sufferings of the patient, to the astonishment of all. *The elm bark may be bought of the Medical Botanists.*

In all cases of burns and scalds, it is necessary to observe, that if fever should ensue, gentle laxative medicines ought to be given; as castor oil, or salts and senna.

In cases of scalding the mouth with hot liquids, gargle with a solution of borax, and then hold in the mouth a mucilage af slippery elm, swallowing it slowly, if the throat also has been scalded; the slippery elm bark may be mixed with olive oil. Some recommend soap liniment, which is made by dissolving soap in spirits.

When a burn is only trifling, and causes no blister, it is sufficient to apply a compress of several folds of soft linen upon it, dipped in cold water, in which has been dissolved a little carbonate of soda; to be renewed every 15 minutes, until the pain is removed.

Dr. Tissot says, in cases of blisters, beat up an egg with two tablespoons of olive oil, or linseed oil, spread it on soft linen, and apply it to the affected part.

For very slight burns or scalds, the *black salve* alone is sufficient to remove the pain and inflammation.

If the skin is not broken, cover the part with a layer of flour or starch, place cotton wool over it, or a linen rag, and bind it over lightly.

If a blister has been burst or cut, use a cerate.

Where the skin has been burnt off, wet applications may be used; the best is lime water and linseed oil; one part of the former to two of the latter, well mixed.

Milk may be used to advantage in the same way; or in the absence of milk use bread and water till you can get the linseed oil and lime water.

Burns and Scalds.—If any part of the body be scalded or burnt, it should be placed in a vessel of new milk as soon as possible, and be kept there till the fire is drawn out. There must be an abundance of new milk obtained where the greater part of the body is burnt; and if a bath of milk cannot be got, the patient must be laid on the first convenient place, and soft cloths steeped in milk must be continually ap-

plied, till the fire is drawn out. This has been known to give instant relief to a man who fell into a copper of boiling wort, when the skin peeled off with his clothes.

Or, a few raw potatoes are to be peeled, and finely beaten in a mortar; add a drachm or two of laudanum; apply to the affected parts, like a poultice. It is very efficacious in the cure of burns or scalds, and other inflamed parts.

An eminent surgeon in the army says: "Opiates are excellent things, and should be given to relieve pain; but the stimulants must not be forgotten. The shock of the burns depresses the whole system, and laudanum, though it relieves the pain, is also depressing in its effects. I would, therefore, (as in accidents of this kind time is most precious) recommend the following mixtures to be given at once:

Laudanum, 30 drops; sulphuric ether, 40 drops; brandy, a table-spoon, in a wine glass of warm water. This should be given directly, and repeated in an hour's time if the pain is not subdued. This treatment should be followed up by beef tea and other concentrated forms of nourishment. Of course the ever present remedy of covering the burns freely with flour from a flour dredge, and applying cotton wool above the layer of flour, must not be neglected.

Burn or Scald.—Immediately plunge the part in cold water, and keep it there for some time; or electrify it immediately; or if the part cannot be dipped, apply a cloth four times doubled, dipped in cold water, changing it when it becomes warm; or a bruised onion; or mix lime-water and sweet oil to the thickness of cream. Apply with a feather. Most effectual.

Or, take a piece of *thick* brown paper, dipped in the best sallad oil then set the paper on fire upon a common plate, upon which will remain a deposit of oil. Apply this oil to the burn. Or, put on the burn or scald a covering of flour; or, cover with treacle, and dust on flour or, cover with the white of egg; or, apply whiting or chalk, and lin seed oil; or, apply a cloth dipped in a solution of alum.

BALDNESS.—The decoction of box-wood successful in cases of baldness is thus made:

Take of the common box which grows in garden borders, stem, and leaves, four large handfulls; boil in three pints of water in a closely covered vessel for a quarter of an hour, and let it stand in a covered earthenware for ten hours or more; strain, and add an ounce and a half of eau de cologne or lavender water, to make it keep. The head should be well washed with this solution every morning.

Liquid for the Cure and Prevention of Baldness.—Eau de cologne, two ounces; tincture of cantharides, two drs.; oil of rosemary, oil of nutmegs and oil of lavender, each ten drops, to be rubbed on the bald part of the head every night.

Baldness.—The falling off of the hair from the crown of the head—sometimes from the whole scalp—and often occurring at a very early age of life. Though premature baldness frequently occurs from fever, or some disease affecting the glands of the cuticle which secrete the roots or bulbs of the hair, it often takes place in young men from no assignable cause. The best preventive means of saving the hair when once it begins to show a tendency to fall off, is to have the scalp shaved immediately, and that operation repeated every month, till the strength of the next crop of bristles gives evidence of a more vigorous growth. At the same time, the following embrocation is to be well rubbed into the scalp every night upon going to bed, after having first irritated the cuticle with the hair-brush, to promote absorption.

Embrocation for the Growth Hair.—Take of castor oil, 2 ozs.; oil of rosemary, 2 drs.; essential oil of bitter almonds, 15 drops; tincture of Spanish flies, 3 drs. Mix.

This will be found serviceable in every condition of baldness. Very little need be used at one time,—the most important object being to diffuse it well over the scalp.

Baldness.—The cause of baldness is defect in the hair follicles from which the hair is developed. Sometimes it is the result of disease and is frequently hereditary. Those who perspire much about the head are generally bald. If the hair falls off after fever, shaving a few times will tend to promote the growth. Keeping the head closely wrapped prevents the growth of hair. A drachm of the tincture of cantharides mixed with an ounce of lard, is a good application. An infusion of the *Asarum Europeum* Asarabacca, may be used as a lotion for the scalp.

Rub the bald part frequently with the juice of an onion till it looks red; or, water, 1 pt.; pearlash, half an ounce; onion juice, 1 gill; rum, half a gill; oil of rosemary, 20 drops. Rub the head hard with a rough linen towel dipped in the mixture; or, take 4 ozs. of castor oil, 8 ozs. best rum, 30 drops oil of lavender, apply occasionally to the head, shaking the bottle well; or, beef marrow, well washed, melted, and strained, ½ lb.; tincture of cantharides, 1 oz.; oil of bergamot, 12 drops. Wash the head frequently with warm water and Windsor soap; or with a decoction of rosemary and southern-wood.

Baldness.—Rub the part morning and evening with onions, till it is red, and afterwards with honey; or, wash it with a decoction of boxwood; or, electrify it daily.

Baldness.—Infuse for a few days, 1 dr. of powdered cantharides in 1 oz. of proof spirit; beef marrow, ½ lb.; soak in several waters, lastly in weak salt and water; melt, strain, and mix, adding 10 or 12 drops of oil of bergamot, or lavender.

BREATH, IMPURE.—There are few things more offensive than a foul or fœtid breath, not only as a source of annoyance to the person himself, but a positive nuisance to all who have the misfortune to approach him. Impure breath except in cases of illness, and when the patient is under a course of mercury, proceeds from two causes—a neglected state of the stomach and bowels, or from decayed teeth and an unclean mouth; and as in either case the remedy is easy, it must be owing to an innate disregard for others' comfort, and neglect of his own, that any person allows so noxious an offense to continue. When the cause proceeds from the bowels, two or three colocynth, or compound rhubarb pills, taken once every six hours, and a black draught, or half an ounce of Epsom salts afterwards, will almost always remove it; while, if the mouth or teeth are the cause, a weak solution of the chloride of lime, used twice a day as a wash for the mouth, rubbing the gums and teeth after each time with a dry cloth, will soon remove all cause of complaint; or, what is still better, the daily employment of a tooth-brush and the following dentrifice:

Take of powdered charcoal, ½ oz.; cuttle-fish, 2 drs.; myrrh, 1 dr. Used as a tooth-powder night and morning with warm water.

BRIGHT'S DISEASE.—A peculiar disease of the kidneys, so named from Dr. Bright, the first to draw attention to the existence of this singular affection, the chief characteristic of which is the presence of a greater or less amount of serum separated from the blood, and found in the urine voided from the bladder.

SYMPTOMS.—Pain in the back and loins, at first slight and occa-

sional, but becoming heavy, dull, and settled, accompanied with restlessness and fever, and the usual functional disturbance in the other organs; loss of appetite, hectic flushes, and general disturbance. These symptoms are succeeded by enlargement in the loins, œlema, or swelling of the face and extremeties, and finally a state of general dropsy. Should these symptoms fail to point out the disease, heat applied to the urine will at once indicate its character; for the serum will become coagulated, and, according to the amount present, either the whole will be rendered solid, or masses of *coagulum* will be seen floating about the water.

The CAUSES of this disease are either a scrofulous condition of the system, an intemperate habit, or the long indulgence in a course of alcoholic liquors, or dram-drinking.

TREATMENT.—A warm bath is the first remedial agent to be employed, which is to be followed by friction over the loins with weak mercurial ointment, containing a drachm of camphor to the ounce; or, if the pain be severe, cupping, or the application of a dozen leeches to the loins should be adopted; at the same time giving one of the following powders every six hours, and a pill, containing 1½ grains of solid opium, at bed-time.

Take of sulphate of potass, ½ dr.; powdered jalap, 1 dr.; powdered nitre, 1 scr.; Calomel, 18 grs. Mix thoroughly, and divide into six powders.

BRONCHITIS.—This disease is very prevalent in the English climate, and often proves fatal. The acute affection often passes into the chronic form. *Bronchitis* is derived from the Greek *Bronkos*, the wind-pipe, and has a reference to the *bronchia*, the ramifications of the trachea. It is an inflammation of the lining membrane of the passages of the throat, through which respiration is carried on.

The first symptoms are running at the nose, eyes watering, frequent sneezing, shivering, dullness, and sometimes pain in the head. The chest is affected, there is a roughness of feeling in the trachea, or wind-pipe, which causes frequent attempts to clear the throat. The fever runs high, there is great weakness, a troublesome cough, and difficult breathing, hoarseness, tightness and pain across the chest. The cough is soon accompanied with expectoration of a thin fluid, having a saline taste, possessing an irritating quality. As the expectoration thickens and increases, the pain begins to abate, and the breathing to be relieved. The pulse is not so violent and the fever abates. These are favorable symptoms; and especially so when the phlegm changes from a glairy liquid to a tenacious phlegm, and decreases in quantity.

The unfavorable symptoms are, feeble, frequent, and irregular pulsation, palid countenance, cold sweats, increased mucous, and the prostration of strength through the cough in efforts to remove it; the cough becomes less effectual to expectorate; wheezing comes on, and next a rattling in the large air-tubes, delirium, and suffocation. Frequently the collapse is very rapid, inducing dissolution in two or three days.

CURE.—The loss of vitality in the system has caused a diminished temperature, chills, coldness of the surface and extremities, imperfect cutaneous functions and the effusion of impure blood on the mucous membrane of the bronchia; followed by irritation and congestion, and the secretion of mucous hinders the breathing. Nature requires the removal of these obstructions. Place the feet in warm water, and administer warm and mucilaginous drinks; as, linseed tea, barley

water, with a little lemon juice; balm tea; gentle aperients, if required; foot-baths, and hot bran poultices to the chest. The surface of the body should occasionally be bathed with warm water and carbonate of soda. The vapor bath is also recommended.

Nothing is so effectual as nauseating medicines. The design of all remedies in this disease is to dislodge the tenacious and viscid secretion which lines the air-tubes, and the impure blood must be corrected and returned to to the surface. Emetics have a specific action on the respiratory organs, dislodging the bronchial phlegm, and removing the tension of the parts.

Take 4 grains of Ipecacuanha powder, in a little warm water, every twenty minutes, till vomiting takes place. Repeat if necessary. Or take the following emetic:

Lobelia, 6 drs.; skunk cabbage, 3 drs.; Ipecacuanha, 4 drs.; cayenne pepper, ½ dr. Powder and mix. One tea-spoon in camomile tea, every twenty minutes till it operates. It is most effectual in clearing the lungs from accumulated matter.*

Laborious breathing may be relieved by inhaling steam from a decoction of bitter herbs, or even hot water. Gentle perspiration must be promoted, and medicines employed to allay the cough, if troublesome. The following is a good mixture:

Ipecacuanha wine, 1 dr.; Aromatic spirits of ammonia, 2 drs.; carbonate of potash, 1 dr.; water, 8 ozs.; and if the cough be irritable, add a grain of acetate of morphia—take two table-spoons every four hours.

Or, take almond oil, ½ oz.; solution of the carbonate of soda, ½ dr.; syrup of tolu, 1 oz.; syrup of poppies, 1 oz.; water 6 ozs. Mix, and take two table-spoons every two or three hours.

Perspiration may be promoted by taking the sudorific powder. (See "Sudorific Powder.")

Counter-irritants are sometimes effectual, as mustard plasters; and in extreme cases, small blistering plasters to the chest.

Dr. Beach recommends flannels dipped in a decotion of hops and wormwood, boiled in vinegar; the flannels to be gently wrung, and applied as hot and as often as possible over the bronchial tubes, or the upper part of the chest. If it produces an eruption, it is favorable.

The bowels must not be neglected, but kept open by gentle aperients, as castor oil, a weak infusion of salts and senna, according to the strength of the patient. This tends to cool the system, and divert the humors from the chest to the bowels.

Bronchitis from the *acute* sometimes passes into the *chronic*. The person in such case should be well clothed, wear flannel next to the skin—should avoid exposure to cold and damp, and abstain from alcoholic drinks. Indeed, in many cases, bronchitis is caused by intemperance, and also by much public speaking. When the cough is violent and fast, take expectorants recommended in this book, and apply to the chest the *Stimulating Ointment* (which see) Dr. Beach advises the use of the *Tar-bath* exactly in the following way: Add 1 oz. of common potash to one lb. of tar, to deprive it of its pyroligneous acid. Mix well, and boil together in the open air for fifteen minutes—then to be kept gently simmering in the room of the patient. This may be done by placing it over a spirit lamp.

The irritating plaster is very serviceable in the bronchial affections. (See "Irritating Plaster.)

* These herbs are sold by the Medical Botanist. Not many Druggists keep them.

The smoking of dried mullein leaves is also recommended.

During the inflammation attendant on this complaint, the diet must be simple and soothing; as gruels, sago, rice, tapioca, arrow-root, etc. The patient must keep in a warm room, and avoid cold and damp. During convalescence, tonics should be freely taken. Avoid stimulating drinks.

BRAIN—Inflammation of.—It begins with inflammatory fever, a flushed countenance, redness of the eyes, pain in the head, disturbed sleep, dryness of skin, constipation, restlessness, irritability, pain in the stomach, a tendency to delirium.

It is caused by hard study, intemperance, grief, anxiety, stopping of evacuations, exposure to the heat of the sun, external injuries, etc. respiration deep and slow, and sometimes difficult.

The disease is a dangerous one, and often proves fatal in a few days, if not speedily arrested.

CURE.—Promote the evacuations. Remove constipation by purgatives, clysters, and mix nitre with tea and other beverages.

Divert the blood from the head by restoring the circulation in the extremities—equalize the circulation. Bathe up to the knees in warm water. In excessive inflammation, apply cups to the temples, and the nape of the neck. Perspiration should also be promoted as much as possible. Should the disease appear obstinate, put a mustard plaster between the shoulders, and to the feet at night. Frequently apply vinegar cloths to the head and temples. The less irritation, noise, light, the better it will be for the patient. "Cold water to the head," says an eminent physician, "and tepid or hot water to the surface of the body, have a powerful effect in forcing the congested blood from the head, and restoring an equilibrium in the circulation.

The food must be simple and light, as panado, water-gruel, toast and water or lemonade, light jellies, barley-water. Nothing stimulating must be taken.

TO ARREST BLEEDING AT THE NOSE.—Introduce, by means of a probe, a small piece of lint or soft cotton, previously dipped into some mild styptic, as a solution of alum, white vitriol, creosote, or even cold water. This will generally succeed; but should it not, cold water may be snuffed up the nostrils. Should the bleeding be very profuse, medical advise should be secured.

Bleeding at the Nose.—Use wheaten flour; it forms a good styptic: snuff it up the nose. Tighten the garters: apply ligatures to the arms, and put the feet into warm water, to bring the blood downwards. To apply a cold wet cloth to the privities is effectual. When it arises from constipation, the bowels should be moved immediately; or plug the nostrils up with lint steeped in strong vinegar, and apply cloths dipped in cold water. The application of ice to the back, temples, etc., is also serviceable; or dissolve 2 scruples of nitre in ½ pint of water, and take 1 cup every hour; or apply to the neck behind, and on each side, a cloth dipped in cold water; or wash the temples, nose, and neck, with vinegar; or snuff up vinegar and water; or foment the legs and arms with it; or dissolve 1 oz. of powdered alum in 1 pt. of vinegar; dip a cloth in it and apply it to the temples, steeping the feet in warm water.

Bleeding of a Wound.—Make 2 or 3 tight ligatures toward the lower part of each joint; slacken them gradually; or apply tops of nettles bruised; or strew on it the ashes of a linen rag dipped in sharp vinegar and burnt; or take ripe puff balls, break them warily, and save the powder. Apply it to the wound, and bind it on. This will

stop it speedily; or take 2 ozs. of brandy; 2 drs. of castile soap; potass, 1 dr.; scrape the soap fine, and dissolve it in the brandy, add the potass, mix, and keep well corked. Apply a little of this to a bleeding wound, and the blood will immediately congeal.

BOILS.—Poultice the boil and paint it with aqueous extract of opium; or tincture of iodine; or the rheumatic liquid; which see. Frequently renew the process every 2 or 3 hours. A piece of lint soaked in olive oil may be strapped over the boil if the person is necessitated to do business. An aperient may be proper except in weakness, when it is best to give weak elixir of vitriol and quinine, or give two of the alterative pills night and morning, and the compound decoction of sarsaparilla. If a boil breaks apply the black salve.

Boils.—Apply a little Venice turpentine; or an equal quantity of soap and brown sugar well mixed; or a plaster of honey and flour; or of figs; or a little saffron in a white bread poultice; or a table-spoon of yeast in a glass of water, twice a day. Take an aperient.

BLACK EYE.—This is caused by a blow or bruise. If attended with inflammation and pain, wash the eye often with very warm water, in which is dissolved a little carbonate of soda; or with equal parts of tincture of opium and water. If the pain be acute, foment with a decoction of stramonium leaves, simmered in spirits. Wash the eye, and bind on the leaves; often repeat. Perhaps the best application is a poultice of slippery elm bark. Mix with milk, and put it on warm.

To remove the black color of the eye, bind on a little raw meat; or a poultice made of the root of Solomon's seal. Culpepper says, "It is available for bruises, falls, or blows, to dispel the congealed blood, and to take away the pains, and the black and blue marks that abide after the hurt." The blackness may be concealed by painting the part with flesh-colored paint.

CARBUNCLE.—A carbuncle is a species of boil, but larger, and much more painful. It shows debility in the constitution. Give a mild aperient, rendered tonic by the addition of quinine. Foment the part with bitter herbs, or steam it with the same. Linseed meal and slippery elm bark, well boiled, makes an excellent poultice; or of poplar bark and slippery elm, and a few drops of tincture of myrrh. When the poultice is taken off, wash well with a decoction of bayberry. The *vegetable caustic*, and the *black salve*, are good remedies. Every time the place is dressed, it should be well washed with soap and water; or weak tincture of myrrh and water. The diet must be light and nourishing. The patient must take exercise in the open air. When the tongue indicates no fever give tonic bitters.

Carbuncle.—A hard, painful circumscribed tumor, co called from *carbo*, a coal, because the ancients likened the pain it caused to a burning coal in a state of perpetual activity.

SYMPTOMS.—Carbuncle commences with a hard, red swelling, which soon becomes of a purple or livid color; the tumor, as it extends, becomes soft; little pimples form on the skin around the centre mass, which soon breaks into small ulcers, from each of which oozes a thin irritating discharge. After some days these small ulcers spread, and uniting, form 3 or 4 large suppurating surfaces, from which the discharge becomes rich and tenacious. Carbuncles more frequently attack the old than the young, and most frequently appear at the nape of the neck, on the shoulder-blade, between the shoulders, or on the *nates* or buttocks. A carbuncle differs from a boil in having no core, and terminating in gangrene, or sloughing, instead of suppur-

ation. Wherever they occur, they indicate a low state of vitality, and a putrescent or typhoid state of the system.

TREATMENT.—A free and deep incision is to be made across the swelling as soon as it begins to point, from above downwards, and another at right angles, from left to right; after the bleeding, which is often considerable, has ceased, the sore is to be poulticed with linseed meal or hot bran, till the sloughing has terminated, and the wound begins to heal. During the early poulticing, and till the carbuncle is opened, a compound colocynth pill should be given every second day, and a dose of the following mixture every six hours, with a grain of opium at bed-time, if there be great irritation;

Take of powdered nitre, 3 scrus.; tartar emetic, 4 grs.; mint water, 6 ozs.; Syrup of saffron, 3 drs. Mix. Two table-spoons for a dose; if sickness should succeed, only 1 spoon is to be taken. As soon as the incisions have been made the patient's strength is to be kept up by a full diet of animal food, with stout or wine 3 times a day. A pill composed of equal parts of colocynth and blue pill, every second morning, and the following mixture every 4 hours:

Take of quassia bark, 1 dr.; cardamom, seeds, 2 drs.; cancll. alba bark, 2 dr.; boiling water. 1 pt. Infuse for 6 hours, strain, and add nitric and muriatic acids, of each 30 drops. Mix. A table-spoon with the same of water, to be sucked through a quill every 4 hours, and at bed-time a pill containing 2 grs. of quinine. These means, with a tepid bath, exercise, and a good diet, will restore tone to the system, cause the healthy granulation of the wound, and probably save the patient from a recurrence of the disease. (See "Boil.")

CORNS.—Boil a potato in its skin, and after it is boiled take the skin and put the inside of it to the corn, and leave it on for about 12 hours. At the end of that period the corn will be much better. The above useful and simple recipe has been tried, and found to effect a remedy.

A Positive Cure for Corns.—The strongest acetic acid, applied night and morning with a camel's-hair brush. In one week the corn, whether soft or hard, will disappear.

Corns.—When small, they may be removed by stimulants or escharotics; as nitrate of silver (lunar caustic), by wetting the corn, and touching it with a pencil of the caustic every evening; previously soften the skin by immersing the feet in warm water; or apply a blister the size of a sixpence. Or the following remedies:

Apply fresh every morning, the yeast of small beer spread on a rag; or, after paring them close, apply bruised ivy-leaves daily, and in fifteen days they will drop out; or, apply chalk powdered and mixed with water,—this also cures warts. Some corns are cured by a pitch plaster. All are greatly eased by steeping the feet in hot water wherein oatmeal is boiled. This also helps dry and hot feet.

Four ounces of white diachlyon plaster, 4 ozs. of shoemakers' wax, and 50 drops of muriatic acid, or spirits of salt. Boil these ingredients for a few minutes in an earthen pipkin, and when cold, roll the mass out between the hands, or upon a marble slab, slightly moistened with olive oil.

Rub together in a mortar, 3 ozs. of powdered savine leaves; ½ oz. of verdigris, and ½ oz. of red precipitate. Mix, and put some of it in a linen bag; apply to the corn at bed-time.

Some people roast a clove of garlic, and fasten it on with a piece of cloth at the time of going to bed. It softens the corns and removes the core in two or three nights' using. When the garlic is taken

off, wash the foot with warm water; in a little time the indurated skin that forms the horny tunic of the corn will disappear.

Avoid tight shoes, boots, and stockings, to be devoid of corns.

Bathe the feet for 20 or 30 minutes in strong soda water and soft soap. After repeating a few times, the corn may be easily drawn out. If the corn be soft, apply a rag dipped in turpentine. Corns should never be cut without being softened in warm water and soap.

Sir Astley Cooper gives the following recipe as an infallible cure: Gum ammonia, 2 ozs.; yellow wax, 2 ozs.; verdigris, 6 drs. Melt them together, and spread the composition on a piece of soft leather, or linen; cut away as much of the corn as you can with a knife, before you apply the plaster; renew in a fortnight, if the corn is not gone.

A *hard* corn should be soaked night and morning in hot water, and scraped. Tincture of iodine, laid on with a camel's-hair brush twice a day, will remove a *hard* corn. For a *soft* corn, the solution of potass should be well rubbed in.

Tincture of iodine, 4 drs.; iodide of iron, 12 grs.; chloride of antimony, 4 drs. Mix and apply, after paring the corn.

After bathing the feet and cutting the corns, apply to them a leaf of house-leek, or one of ground-ivy, or of purslane, well steeped in vinegar. Renew every evening for a few days.

Corn Solvent—Sir H. Davy's.—Potash, 2 parts; salt of sorrel, 1 part. Mix in fine powder. Lay a small quantity on the corn for four successive nights, binding it on with rags.

METHOD OF CURING THE STINGS OF BEES AND WASPS.—The sting of a bee is generally more virulent than that of a wasp, and with some people attended with very violent effects. The sting of a bee is barbed at the end, and consequently always left in the wound; that of a wasp is pointed only, so that they can sting more than once, which a bee cannot do. When any person is stung by a bee, let the sting, in the first place, be instantly pulled out; for the longer it remains in the wound, the deeper it will pierce, owing to its peculiar form, and emit more of the poison. The sting is hollow, and the poison flows through it, which is the sole cause of the pain and inflammation. The pulling out of the sting should be done carefully, and with a steady hand; for if any part of it breaks in, all remedies then, in a great measure, will be ineffectual. When the sting is extracted, suck the wounded part, if possible, and very little inflammation, if any, will ensue. If hartshorn drops are immediately afterwards rubbed on the part, the cure will be more complete. All notions of the efficacy of sweet oil, bruised parsley, burnet, tobacco, etc., appear, on various trials, to be totally groundless. On some people, the sting of bees and wasps has no effect; it is therefore of little consequence what remedy they apply to the wound. However, the effect of stings greatly depends on the habit of body a person is of; at one time a sting may take little or no effect, though no remedy is used, which at another time will be very virulent on the same person. We have had occasion to test this remedy several times, and can safely avouch its efficacy. The exposure to which persons are subjected during the hot summer months will, no doubt, render this advice useful, its very simplicity making it more acceptable

THE STING OF A NETTLE can be cured by rubbing the part with rosemary, mint, or sage leaves.

COUP-DE-SOLIEL—SUNSTROKE.—This sudden and dangerous disease is very rare in this country, or any part of Europe, but in tropical latitudes is very common, especially among those who do not

take sufficient care to keep the head well defended from the vertical rays of the sun. The attack is generally so sudden, that the person has only time to be conscious of an instantaneous and excruciating pain in the head, before he sinks insensible to the earth, or on the deck of the ship—struck down as if by an instant apoplexy.

THE TREATMENT in such cases is to be guided in a great measure by the age of the patient; bleeding, however, either from the arm or temples, must be immediately adopted, cold lotions applied to the head, and the nape of the neck cupped; the patient, moreover, is to be kept perfectly still, and in a darkened chamber, and the antiphlogistic regimen strictly adopted, and by the exhibition of the following mixture, after a dose of calomel and croton oil; take of Epsom salts, 1 oz.; tartar emetic, 2 grs.; water, 10 ozs., mix. Three table-spoons to be given every four or six hours.

CRAMPS are irregular spasmodic contractions of the muscles of the whole or different parts of the body, causing most severe pain by the knotty and hardened state into which their fibres are contracted. Though cramp may involve the greater number of the muscles at once, the parts most generally affected are those of the feet, legs, thighs, abdomen, and arms.

The CAUSE sometimes proceeds from the sudden application of cold to the heated body, damp sheets, wet feet, or wet clothes; the irritation produced on the nervous system by the absorption of lead, arsenic, or other mineral poisons, and the exhaustion on long-continued evacuations, as in cholera; from the specific action of some animal *virus*, as in the bite of venomous reptiles, and in bathing, from coming in contact with cold springs, and a too lengthened stay in the water.

TREATMENT.—Friction will always be found the most valuable means for subduing cramps, whether general or local; and if nothing else can be obtained, the hand alone, or a piece of flannel, if properly used, may be always made of service. When a hot bath can be obtained, it should always be employed immediately, and friction used while in the water. For the more local kinds of cramp, an embrocation of camphorated oil, turpentine, and spirits of hartshorn is to be employed, rubbed in with the hand in the direction of the muscular fibres. For the cramps that arise from constitutional causes, the remedies ordered under the head of these diseases must be consulted: while for ordinary local cramps, the embrocation prescribed above, with friction, and bottles of hot water to the feet, will be found to be generally sufficient. The only internal remedy demanded is an occasional draught, composed of 1 oz. of brandy, ½ dr. of sal-volatile, 25 drops of laudanum, 15 drops of ether, and 2 ozs. of water. (See "Convulsions," "Spasms.")

BUNION.—An inflamed and painful swelling of the *bursa mucosa*, or sac containing the oil of the joint, chiefly situated on the inside of the great toe. This disease, if not remedied in time, is certain to lead to a permanent enlargement and disfigurement of the toe. The exciting cause is generally a long-continued pressure from a tight boot or shoe.

TREATMENT.—This should commence with a warm bran poultice, continued for one or two hours, so as to soften the cuticle of the part; a piece of lint, wetted in the extract of lead, is then to be applied, cold, round the toe, and the lint moistened from time to time with more of the extract. In a few hours all inflammation will have subsided, and if care be taken not to repeat the pressure, but use a large boot, the bunion will be cured. If it be preferred, a couple of leeches

may be applied, and, after the bleeding, a lotion. But in almost every case, the above treatment once or twice repeated will be certain to effect a cure. When the toe has become enlarged by the thickening of the cartilages, caustic may be rubbed over the part, after the inflammation has been subdued; and when the blackened cuticle peels off, the same process may be repeated till absorption has carried off the swelling.

A piece of thick buckskin, or agaric, with a hole cut out for the swollen part to come through, and then spread with adhesive plaster, should be worn for several days, to take off all pressure from the toe when shoes or boots have to be worn.

Bunion.—A plaster of Burgundy pitch should be kept over a bunion; or a piece of lint or linen rag wetted with a strong solution of sal-ammoniac, to be kept on constantly wet. Poultice them with house-leek and ground-ivy dipped in strong vinegar. Some recommend the application of caustic to the part, and also the application of leeches, and the Burgundy pitch and soap plasters spread upon soft leather. To be free from bunions and corns, especially avoid pressure from tight boots, shoes, and stockings; the last are very injurious, as they compress the feet by their elasticity.

CATARRH.—This comprises *a cold in the head, or influenza.* Both begin with chilliness, sneezing, bad appetite, running at the nose, red and watery eyes, fever, etc. It is inflammation of the mucous membrane of the nostrils, or bronchial passages. Sometimes there is a slight cough only, and sometimes a harrassing one. It is caused by exposure to cold or wet, damp, epidemic poison. To cure, let the diet be low, drink toast and water, warm gruel, or barley-water acidulated with a little lemon or cream-of-tartar. Bathe the feet at bed-time in hot water. Use the vapor bath, or wrap hot bricks in cloths or flannels dipped in vinegar and water, to the feet and sides. Should the cough be troublesome, take a cough pill or the pulmonary syrup.

CHAPPED HANDS.—Rub them night and morning with raw linseed oil.

Chapped Hands.—Rub a little glycerine (which can be bought at any chemist's), with a little borax, upon your hands at night, and wear gloves in bed.

Chapped Hands, etc.—Wash with soft soap, mixed with red sand; or, wash them in sugar and water; or, apply a little sal-prunello.

Chapped Lips.—Clarified honey, a table-spoon; pour a few drops of rose or lavender water into it. Apply it to the lips often. Or, honey, 1 oz.; litharge and myrrh, each ½ oz.; melt, and perfume; cork well.

Chapped Hands and Lips.—The first of these troublesome complaints is most frequently the result of neglect in not sufficiently drying the hands after washing, and exposing them, in a wet or damp state, to the influence of cold winds, and the action of the weather. Sometimes, however, it proceeds from a scrofulous state of the system, or a scorbutic condition of the cuticle. Persons affected by, or liable to, chapped hands, should be particularly careful always to dry them well after washing, and either smear a little honey on the backs of the hands and fingers on removing them from the water, rubbing it well into the cuticle, and then drying them; or they should, after drying them, effectually dust them with violet powder, so as to absorb any adhering moisture, and close the pores. For chaps the result of a scorbutic state, if the honey is not sufficient to restore the skin to a natural smoothness, the following ointment should be rubbed on every

night, the hands being afterwards encased in gloves till the morning: Take of citron ointment, 1 dr.; camphor, powdered, 1 dr.; white ointment, 6 drs. Mix.

Chapped Lips.— Though sometimes the result of cold winds, they far more frequently proceed from the state of the stomach and bowels, and can only be cured by taking a few doses of an aperient pill or mixture, and the nightly application of a cerate made by rubbing a drachm of camphor with 2 drachms of white or spermaceti ointment.

CANCER.—A cancer is a hard, indolent tumor, usually seated in some of the glands, as the arm-pits, eye, nose, lips, tongue, womb, and the female breast; the two last are most subject to it. It affects the aged more than the young, and may exist for years. It commences with a small, hard tumor, increasing slowly, and attended with acute shooting pains; sooner or later ulceration sets in. The discharge is so acrid as to inflame the part with which it comes in contact. The place where cancer occurs assumes a purplish appearance previous to its ulceration. Ulceration gives ease for a time, but the cancer penetrates deeper, and spreads wider, corrupting the stream of life, and reducing to the greatest debility, and often terminating in death.

TO CURE, remove debility, and improve the general health. Regulate the bowels, and give an emetic. Give a vapor bath made of bitter herbs, as camomile, hops, catnip, tansy, etc., and boiling water and vinegar. Occasionally rub the whole surface of the body with the following liniment: Cayenne, 1 tea-spoon; salt, 2 table-spoons; pour upon them ½ pt. of boiling water; infuse 3 hours, and then add ½ pt. of boiling water; infuse 1 hour longer, stirring occasionally. Steaming with the bitter herbs, combined as above, allays the pain, swelling and inflammation. The following pills will be of much use: Blood-root, 1½ dr.; extract of dandelion, 3 drs.; lobelia seed, 1 dr., cayenne, 1 dr.; senna, in powder, 1 dr.: add 3 drops of oil of mint, and form into pills. These pills will be found very efficacious in the cure of jaundice, and liver complaints.

Citric acid will relieve the pain of cancers. Dr. Brandini, of Florence, had a patient, aged 71, afflicted with cancer on the tongue. An operation could not be made, for the affection was too extensive, investing the base, the sub-lingual, and the sub-maxillary glands. In the midst of his pain, the poor man asked for a lemon. It abated the pain; and the next day it gave him still greater relief. This led the doctor to try *citric acid;* 4 grs. of the acid, in 1 oz. of water; and this as a gargle, entirely carried off the pain, and reduced the swelling of the tongue very much. The doctor tried the same remedy on a female with an ulcerous cancer on the breast, deemed incurable. Her torments were so great, that neither she nor the other patients could get any rest. He applied a pledget of lint soaked in the above solution, and the relief was instantaneous. It was repeated with the same success. Thus citric acid promises to be a great boon to mankind. Citric acid is prepared from lemons.

Externally apply the following: Simmer cicuta leaves till they are soft, then mix them with slippery elm bark, to form a poultice; apply morn and night. It is valuable. Or apply the *irritating plaster*, for a continual discharge must be kept up, as the patient is able to bear it. The douch bath has been recommended, and doubtless it has had a good effect in many cases. The following applications are useful:

Cayenne and lobelia seed, equal quantities, powdered; meadow fern and balm of gilead buds, of each 3 ozs. (these two steeped in

spirits for five or six days, and made into ointment, with lard sufficient.) Unite the whole as a paste, and apply to the cancer, covering with a cloth. When the plaster is taken off, wash with soap-suds. Or burn a quantity of red oak bark to ashes, and make into lye. Boil the lye till it becomes as thick as honey. Then apply constantly. Such preparations, by their stimulating and relaxing properties, excite a preternatural discharge, or cause a sloughing of the ulcer, and thus remove or lessen it. Use one of these ointments principally, the *Black Salve* occasionally, and after much discharge, dress with an emollient ointment. This treatment has effected numerous cures. (See "Black Salve.")

A decoction of narrow-leaved dock-root has been found to produce rare effects Saturated cloths with the same may also be applied. Or the root may be powdered, and made into an ointment with lobelia seeds powdered.

Cancer Plaster.—White oak bark, 4 oz.; bruise it well, and add urine sufficient to cover it Infuse four days, boil it till it becomes as thick as molasses. Add 2 ozs. of honey, and 2 ozs. of strained turpentine gum. To make this plaster caustic, add 2 drs. of white vitriol. Spread on soft leather, or linen. It may be applied to all kinds of ulcers, white swellings. For cancers it is invaluable.

Cancer.—Use the cold bath. This has cured many. A bleeding cancer was cured by drinking twice a day a quarter of a pint of the juice of clivers, or goose grass, and covering the wound with the bruised leaves. Another by the following recipe:

Take ½ pt. of small beer. When it boils, dissolve in it 1½ ozs. of bees-wax; then put in 1 oz. of hog's lard, and boil them together. When it is cold, pour the beer from it, and apply it spread on white leather. Renew it every other day. It brings out great blotches, which are to be washed with sal-prunello dissolved in warm water.

If it be not broken, apply a piece of sheet lead beat very thin, and pricked full of pin-holes, for days or weeks to the breast. Purges should be added every third or fourth day. Or, rub the whole breast morning and evening with spirits of hartshorn mixed with oil. Or, keep it continually moist with honey.

COLD.—Never neglect a cold It may be the forerunner of some disease difficult to cure. Consumption often follows a neglected cold. A cold is caused by the loss of heat, and a decrease of nervous energy, causing an obstruction of the perspiration.

To remove a cold, restore the perspiration. Take a decoction of the sudorific herbs, as catnip, pennyroyal, yarrow, or angelica. Take the composition powder (which see). Place the feet in warm water before going to bed, and put a bottle of water to the feet, wrapped in cloth wet with vinegar and water. Give a basin of hot gruel, and let the patient oft drink of the herb tea. Repeat this treatment, if necessary. If the throat is sore, wet some hops in hot vinegar, put in cloth, and wrap around the neck. If the cough is troublesome, use some of the cough remedies. (See "Cough.")

Or, take linseed, 1 cup; raisins, 4 ozs.; licorice in stick, 2 pennyworth; soft water, 2 qts.; simmer till reduced to 1 qt.; add 4 ozs. of sugar candy, 1 table-spoon of old rum, and 1 of good vinegar, or lemon juice. Add the rum and vinegar as the decoction is taken. Take a cupful two or three times a day. The patient should lie in bed a day or two.

Cold in the Head.—M. Farn, a Belgian physician, says, a cold may often be arrested by a brisk friction of the back of the head with

some stimulant lotion, as lavender water, sal-volatile, etc. And also a similar rubbing, two or three times a week, will prevent the "catching" of a cold by those who are liable to do so from slight causes.

Cold—To Avoid Catching.—Accustom yourself to the use of sponging with cold water every morning on first getting out of bed, followed with a good deal of rubbing with a wet towel. It has considerable effect in giving tone to the skin, and maintaining a proper action in it, and proves a safeguard to the injurious influence of cold and sudden change of temperature. Sir Astley Cooper said, "The methods by which I have preserved my own health are—temperance, early rising, and sponging the body every morning with cold water, immediately after getting out of bed; a practice which I have adopted for thirty years without ever catching cold."

Cold, A, To Cure.—The following plan is very effectual in curing most colds, but not all: Let a man eat next to nothing for two days, provided he is not confined to bed, for by taking no carbon into the system by food, and by consuming the surplus which caused his disease, by breath, he soon carries off his disease by removing the cause. This will be found more effectual if he adds copious water draughts to the protracted fasting. By the time a person has fasted one day and night, he will experience a freedom from disease, and a clearness of mind, in a delightful contrast with mental stupor, and physical pain caused by colds.

Or take 1 handful of yarrow, ½ an oz. of ginger root, bruised, or 1 tea-spoon of cayenne pepper, and about 3 pts. of water. Boil to 1 pt. Add a little sugar if you like. Take a good dose at bed-time, and your cold will be cured by the next morning; if not, repeat the dose.

Cold is a mere relative term, and signifies a less degree of heat, or the absence of a definite amount of caloric. In this sense the term is chiefly confined to the science of chemistry. Cold, regarded as a substance, either in the form of snow, ice, or water at a low degree of temperature, is sometimes used as a valuable agent in the treatment of disease. When employed to reduce inflammatory action, or lower the temperature of the body or a part of the frame, other articles, such as ether and vinegar, are employed—though hot and stimulating in themselves—to produce cold, or suddenly reduce the temperature of a part, by the action of evaporation.

Cold, A.—A conventional term used generally to express an abnormal condition of the system, analagous to a mild form of influenza, catarrh, or some affection of the respiratory organs or air-passages, accompanied with more or less of hoarseness, running at the nose and eyes, headache, and general lassitude and debility. See "Catarrh."

Cold in the Head.—This is a local form of what may be called an attack of influenza, and without materially affecting the general health, is very frequently a most distressing form of indisposition. The symptoms are a fullness and oppression of the head, hot and bloodshot eyes, effusion of tears, discharge of thin mucus from the nose, with sore throat and a contraction of the scalp. The treatment of a cold, whether attended with constitutional symptoms, such as shivering and diminished secretions, or simply confined to the head, is nearly the same in all cases. This should begin with a warm bath, taken about eight o'clock at night, with a free use of the flesh-brush during the five minutes allowed in the water, followed an hour after by a powder composed of powdered nitre, 8 grs.; opium and ipecacuanha, of each 1 gr.; and succeeded, in half an hour later, by a basin

.. hot gruel—the patient, by immediately going to bed, and by extra clothes, endeavoring to get into a copious perspiration. When the bath is inconvenient, a pail of hot water should be carried to the bedside, and when the invalid is undressed, the feet and as much of the legs as can be reached should be hastily plunged up and down three or four times in the hot water, till the limbs appear of a bright red; the water being made as hot as it can be endured without pain. The limbs are then to be hastily enveloped—undried—in a blanket, and the patient, getting into bed, just before lying down should drink half a pint of egg-flip. When the throat is particularly sore, a small piece of sal-prunello or of Spanish juice may, in addition to the other means, be placed in the mouth on finally lying down for the night. In most cases the above simple means will be found sufficient, if the water has been hot enough to cause a determination of blood to the feet, and predispose the body to the action of the powder, or the flip, on the skin. When the symptoms are aggravated, and do not yield to the first means, the feet should be immersed on the following evening in hot water, and the following powder taken before the gruel: Take of Dover's powder, 10 grs.; antimonial powder, 4 grs. Mix.

COLIC.—This is a spasmodic affection of the bowels, especially of the colon. It begins with great pain in the bowels, especially just under the navel, nausea, retching, and vomiting. The pain is of a sharp, twisting character, very distressing. This affection is caused by wind, disagreeing food, acrid bile, obstinate costiveness, worms, noxious metallic vapors, etc.

Flatulent Colic.—Give a tea-cup of the *anti-spasmodic tincture*, in a cup of peppermint tea; or a tea-spoon of Turkey rhubarb, and one of magnesia, with a pinch of cayenne pepper; this will often afford relief. Apply fomentations or friction to the abdomen. If the bowels are not operated upon, give castor oil, ½ oz.; add also a simple injection.

The Bilious Colic is more severe. It is known from the former by a bitter taste in the mouth, great thirst, fever, vomiting of bilious matter, headache, and great costiveness. The remedies must be the same, but stronger and brisker. The neutralizing mixture must not be forgotten; give also the stimulating injection.

Colic, Bilious.—Drink warm lemonade. I know nothing like it. Or, give a spoonful of sweet oil every hour. This cured one at the point of death.

Colic.—Drink strong camomile and ginger tea; or, from 30 to 40 drops of oil of anise-seed; or, apply outwardly a bag of hot oats, or bran; or, steep the legs in hot water; or, take as much Daffy's Elixir as will purge. Very effectual.

Colic Ball for Horses.—Powdered opium, ½ dr.; Castile soap and camphor, of each 2 drs.; cayenne pepper, 1 dr.; ginger, 1 dr. Make into a ball with licorice powder and molasses. If the horse is constipated as well, add to the ball 5 or 6 drops of croton oil.

Colic.—There are few diseases attended with more pain and inconvenience than this comparatively harmless affection; for though its symptoms are very urgent and even severe, colic very seldom proves fatal. Physicians have made almost as many varieties of colic, with a distinctive name to each variety, as there are symptoms to the disease.

Avoiding this unnecessary confusion of terms, we shall confine our remarks to common colic only.

CAUSES *of Common Colic.*—The exciting causes are extremely

numerous, and may be either external or internal. Of the first, the sudden application of a wet or damp portion of clothing next the skin of the abdomen, cold or wet feet, or unbuttoning the coat when violently heated, and admitting cold air to the part, are among the most general of the external causes inducing this disease. The internal are either from partaking of too much unripe or acid fruit, from an accumulation of undigested food in the stomach, acid drinks, an excess of bile in the system, crude vegetable aliment, the eating of poisonous fungi, worms, and from a long costive state of the bowels.

SYMPTOMS.—These consist of an enlarged condition of the lower part of the abdomen, with a retraction or drawing in of the navel, accompanied by an extremely painful twisting and twining motion of the bowels, with a rumbling, flatulent noise, sickness, and sometimes vomiting; and as the hardness and distension of the belly increases, cramps or spasms occur, either in the abdominal muscles, or in those of the thighs and legs.

The only diseases with which colic can be confounded are cholera and inflammation of the bowels. From the first it is distinguished by the absence of diarrhea; and from the last by the pain being relieved by pressure; and finally, from all painful affections of the abdomen, by the twisting pain at the navel.

TREATMENT.—In all cases, and from whatever cause the attack has been induced, the first exertions should be directed to subduing the pain. For this purpose the feet should be plunged into hot water, and the front of the abdomen fomented with flannels wrung out of hot water and turpentine, and the following mixture, preceded by an assafœtida pill, given immediately: Take of spirits of camphor, 20 drops; laudanum, 40 drops; water, 1 oz.; mix, and add castor oil, 6 drs. The whole to be taken at once.

If the pain is not relieved within a reasonable time, an injection of half a pint of warm gruel, to which 1 dr. of tincture of assafœtida and 2 drs. of turpentine have been added, should, about two hours after the pill and oil, be thrown up the bowels, the fomentation continued to the stomach, and the feet kept hot with heated bricks. When the pains and spasms are excessive, inflammation of the bowels may be apprehended, and, indeed, sometimes does ensue; in which case it is often necessary to bleed, though the same result can be obtained without the consequent debility, by giving doses of the following mixture till the pulse is reduced and the pain abated. Take of camphor water, 8 ozs.; powdered nitre, 2 scrs.; tartar emetic, 4 grs.; laudanum, 2 drs.; mix. Two table-spoons to be given every hour for three doses, and repeated every four hours afterwards, if required. As soon as the colic pains have been subdued, it will be necessary to give either a dose of carbonate of soda, or magnesia and soda, if acid in the stomach has caused the attack; a mild dose of colocynth pills if it has been from costiveness; or a blue and colocynth pill if from an excess of bile; or whatever remedy the primary cause of the disease may seem to call for.

Colic is generally confined to that portion of the large intestine called the arch of the colon, and is purely a functional disorder.

CHILBLAINS.—To cure chilblains, simply bathe the parts affected in the water in which potatoes have been boiled, as hot as can be borne. On the first appearance of this ailment, indicated by inflammation and irritation, this bath affords relief. In the more advanced stages, repetition prevents breaking out, followed by a certain cure; and an occasional adoption will prevent a return.

Chilblains.—Take 1 oz. of white copperas; dissolve in a quart of water, and apply it occasionally to the affected parts. Let this be used before the chilblains break. Or, apply a poultice of roasted onions. Or, wash with a decoction of horse-radish made with vinegar and water. Or, with a little camphorated brandy.

Or rub into them before the fire, a solution of white vitriol and sugar of lead. If the chilblains are broken it must not be used. Or, take lard, 2 ozs.; turpentine, ½ oz.; camphor, ¼ oz.; melted together.

If the parts have been frost-bitten, keep from the fire; immerse the parts in snow or cold water; then apply brisk friction, and a little camphorated spirits. To ease the pain, apply an elm bark poultice, or a poultice made of wheat bran, soft soap, and table salt. Apply afterwards the black or healing salve.

If unbroken, take sal-ammoniac, 1 oz.; vinegar, ½ pt.; bathe the part. Alum and salt will do, but not so effectually—mix in vinegar and water. If the chilblains are old, use the "Stimulating Liniment."

Chilblain Liniment.—One ounce of camphorated spirit of wine; ½ oz. of liquid sub-acetate. Mix, and apply in the usual way three or four times a day. Some persons use vinegar as a preventive; its efficacy may be increased by the addition of one-fourth of its quantity of camphorated spirit.

Chilblain Lotion.—Get 1 dr. of sugar of lead; 2 drs. of white vitriol; reduce them to a fine powder, and add 4 ozs. of water. Before using this lotion, it is to be well shaken, then rubbed well on the parts affected, before a good fire, with the hand. The best time for application is in the evening. It scarcely ever fails curing the most inveterate chilblains by once or twice using. It is not to be used on broken chilblains.

CONSTIPATION, COSTIVENESS.—A sluggish state of the lower bowel, causing the retention of the fæces. It is a very common disease. It may be caused by food hard to be digested, by ardent spirits which have a very constipating influence, and debilitate the lower bowel; frequent excessive purges have the same effect. Sedentary employments, the want of exercise, and fresh air, and not drinking water in sufficient quantity, lead to costiveness. It is often attended with many distressing symptoms, and is the cause of various dangerous diseases; as piles, fistula, indigestion, hernia, colic, cholera. And it is also the effect of many diseases.

Constipation is to be removed by an attention to diet, by adopting a vegetable diet, and by eating bread made of unsifted flour; that is, no bran, sharps, etc., taken away. Also, by taking much exercise, and a more copious supply of diluents, especially toast and water. Make a regular habit of evacuating once a day at a fixed hour, and always make an effort whether successful or not. Assist the bowels by an injection of warm water, about half a pint; if very obstinate, add to the water a little castor oil. For several nights take one or two of the dyspeptic pill; or one or two of the following:

Powdered aloes, jalap, gamboge, colocynth, extract of gentian, mandrake, cayenne pepper, of each ½ oz.; castile soap, ¼ oz.; oil of peppermint, ½ dr. Mix well, and form into pills. It purges without griping and weakening. DOSE.—Two or three pills.

Sulphur is a good remedy, especially when there is a tendency to piles. If there is a deficiency of bile, take blood-root (which see,) with a little powdered dandelion root. The flesh brush, cold sponging, and the shower-bath, are excellent remedies.

Constipation or Costiveness.—Professor Phœbus, of Giessen, refers habitual costiveness to the following causes:

The too spare use of articles of diet which promote the action of the bowels. Water is placed first. It is taken by many in insufficient quantity. In sedentary occupations the sensation of thirst is too seldom excited, and the habitual frequency of such sensation may be diminished if the satisfaction of the call be neglected. To this class of aliments belong fruits, salads, sour milk, honey, and fat. Many country people, who sell all their produce, eat little of these things, and the poorer inhabitants of towns get them in insufficient quantity. Those persons who can procure them, eat salads and fats in too small quantities. Too little bodily exercise. Want of exercise of the powers of the large intestine. This is the most influential of all the causes. It is an error to suppose that the power of the will extends only over the sphincter; for it prevails much higher, only it requires more time for its exertion. Several minutes, or a quarter of an hour, may be required to initiate the evacuatory movement By exercising it, we increase the disposition of the intestine to act, but this is rarely the case in less than five minutes.

Numerous remedies have been recommended for constipation; but the action of medicinal substances in so chronic an affection may become prejudicial, especially such as exert a chemical action, as salts or drastics. If a stool is desired, the patient must earnestly practice the necessary gymnastic, which consists in alternate movements of the rectum as during actual evacuation, and in rapidly drawing in and then expanding the abdominal muscles. Such movements may be commenced in the chamber and completed in the closet, several minutes, a quarter of an hour, or even more, being required. If evacuation has commenced, but has not proved productive enough, the movements must be continued, the person resolving not to quit the closet until the aim has been attained. The movements are the same as those normally employed; but they are more rapid, and continued for a longer time. Kneading and rubbing the abdomen, may be useful but they are unnecessary; and may be reserved for those not able to follow the above directions, such as children, etc.

An adult should compel a stool every day. In from 4 to 8 weeks, a complete mastery may be acquired over the intestine, so that a stool may be always secured once in the 24 hours. This powerful agency acts more efficiently when conjoined with articles of diet favorable to an open state of the bowels. A large quantity of water will be more easily drank if at first carbonic acid gas be added. An adult, during winter, should take from 50 to 70 ozs. daily, (deducting from this the eqivalent of any artificial drinks he may take), a larger quantity still during great bodily exertion, and from 1½ to twice the quantity in a summer. When raw fruit gives rise to flatulence, it may be taken cooked with spices, and especially when dried and cooked. With greater regularity of stools, flatulence becomes less, the food being retained for a less time within the canal. Exercise is of great service; but it exerts no sudden effect, and at first may even induce constipation.

Trying the plan upon himself when a student, the author has, during his 28 years of practice, recommended it to an immense number of persons, and in the great majority of cases, with complete success. He has attained the power of procuring a daily stool at any convenient time between 4 o'clock A. M., and mid-day, the average time required being a quarter of an hour. Only on one occasion dur-

ing 30 years has he failed in his object. The plan is not so suitable for the aged; and is inapplicable to women during advanced pregnancy, or in organic disease or prolapsus of the uterus. When from insufficient perseverance the means does not succeed, cold water clysters form the best supplement; and, exceptionally, salt and oil, with camomile tea, etc., may be thrown up. The author never gives purgatives by the mouth in chronic constipation, believing it to be most impolitic to irritate the stomach and small intestines, disturbing chylopœsis, and introducing into the blood materials that are always more or less injurious.

CONSUMPTION.—The word is derived from the Latin verb *consumo*, to consume or to waste away. It is also called phthisis, from the Greek verb *phthio*, to waste away. Consumption is the most frequent and most fatal of all pulmonary diseases. It often begins with a slight dry cough, so slight and painless as not to attract notice. By and by the cough increases, and expectoration gradually becomes copious, thick, yellow, and tinged with blood. Sometimes the appetite remains tolerable, but the breathing is more difficult, especially during and after bodily exertion, and the pulsation is become accelerated. There is a gradual emaciation of the body, debility, night sweats, interrupted rest, the hectic flush, or a bright scarlet spot on the cheek, especially after eating, tightness of the chest, and acute pains under the breast-bone. In the last stage emaciation rapidly increases, and the patient has alternations of hope and fear as to recovery. Hope, however, the most prevails.

As to the *treatment of consumption*, Dr. Beach says, "If the pathology of phthisis consists in a *diseased state of the blood*, all former treatment is wrong, or very inefficient. We prescribe for the *symptoms* instead of the cause. If the elements of this disease circulate in the blood, as in scrofula, syphilis, and other complaints, and are thrown by the efforts of the system to the lungs, and there develop tubercles then is it not obvious that we must prescribe *alteratives*, or such medicines as will eradicate its morbid condition?" It is evident from these rational remarks, that the nature of this disease, and that of others, depends upon a morbid and diseased condition of the blood. Hence then there must be an attempt *to alter the quality of the blood.* Remove all the causes which produced this disease, as obstructed perspiration, evacuations, and secretions, a cold and damp residence, insufficient warmth, and clothing, intemperance, venery, and self-polution; the last habit is the most prolific cause of consumption.

In the first stage of consumption, special attention must be given to the skin and bowels, by adopting the vapor bath, stimulating liniments, (See "Stimulating Liniments,") and also injections, to equalize the circulation, reduce all feverish symptoms, and prevent night sweats. A *medicated vapor bath* is the best; which see. Put the patient to bed, and place to the feet and sides hot bricks wrapped in cloths dipped in vinegar, and half wrung out, and give an emetic; repeat this process once or twice a week, and sponge morning and evening with the aforenamed liniment, and occasionally in the morning with a decoction of poplar bark. Rub very dry with a towel. This will prevent night sweats. To improve the appetite, if bad, give the *tonic bitters.* (See "Tonic Bitters.") If the patient is constipated, give an injection of ½ pint of warm water, or thin gruel, with a little butter, or sweet oil, or castor oil, adding 1 or 2 tea-spoons of tincture of myrrh. Sometimes a lax state of the bowels prevails; in that case give from 10 to 15 drops of laudanum; or mix finely pulverized char-

coal, 2 parts, and magnesia, 1 part; a table-spoon occasionally, or give the *neutralizing mixture;* which see. Let the *cough syrup* be taken 2 or 3 times a day, to promote expectoration, ease pain, etc. Let the patient's diet be light, nourishing, and easy of digestion.

In cases of consumption, the celebrated Dr. Beach, very highly extols the use of *sanguinaria canadensis*, or *blood-root*. It is a sedative and alterative of great power; in reducing the pulsation it is superior to digitalis, and it does not debiliate at all. It promotes the secretions of the liver and therefore promotes the appetite; it is a powerful tonic and when it is taken properly nothing tends more to check morbific influence, to promote the secretions, appetite, and digestion, and to improve the muscular power, and facial appearance. In restraining spitting of blood, and especially in females where the menses are substituted by the effusion of blood from the lungs, no medicine is so efficacious as *blood-root;* (which see)

As to the benefit to be derived from cod liver oil, the matter is dubious. It is feeding, but not antiseptic. It may prevent, to some extent, emaciation; but to prevent the formation of tubercles, and, consequently, decay, it is a matter of doubt. Much benefit may be derived from gentle emetics, tonics, the *irritating plaster;* (which see,) and for pain in the side the *rheumatic liquid*. Also constant fresh air in a genial atmosphere. The following syrup is a fine expectorant and alterative:

Blood-root, 4 ozs.; bruise and simmer in a qt. of water, down to a pt. nearly; add 1 lb. of sugar; simmer again to form a syrup; and ½ oz. of solution of iodine of iron; take a teaspoonful 2 or 3 times a day.

Many have derived much benefit from tar water, and some have been completely cured by it. "In *Dr. John William's Legacy to the World*," this recipe is given—common tar, a table-spoon; honey, 3 table-spoons; 3 yolks of hen's egg; wine, ½ pt. Mix and bottle for use. A tea-spoon 3 times a day.

Should the bowels be extremely relaxed, take a grain of powdered alum and a grain of sulphate of iron, as a powder. This has performed wonders. Drink much barley water, taking occasionally 5 or 6 drops of the oil of anise-seeds to relieve the cough. Chlorodyne also affords much relief to a cough.

With regard to *climate* for the consumptive it is not only as uniform a climate as can be found that is wanted, but the same means of eradicating the disease as the patient had in his own country, but where he was prevented by fitful weather from making use of them. Occupation for his mind and body is essential to recovery. His object should be to remain as much as possible in the open air; to enjoy moderate daily exercise for several hours; to partake of a mixed and wholesome nourishing diet; to be refreshed by undisturbed repose during the night; to cleanse the body by daily ablutions; and to have his mind diverted by new and cheerful scenery, from home longings, and from dwelling too much upon the nature of his malady.

Dr. Richardson, in his treatise upon pulmonary consumption, says, "I shall recommend no particular place as a resort for consumptives. It should be near the sea coast, and sheltered from the north-easterly winds; the soil should be dry; the drinking water pure; the mean temperature about 60°, with a range of not more than 10° or 15° on either side. It is not easy to fix any degree of humidity; but extremes of dryness or of moisture are alike injurious. It is of importance, in selecting a locality, that the scenery should be enticing

so that the patient may be the more encouraged to spend his time out of doors in walking, or riding exercise; and a town where the residences are isolated and scattered about, and where drainage and cleanliness are attended to, is preferable to one where the houses are densely packed, however small the population.

A sea-voyage is sometimes recommended in *incipient* consumption. This is often followed by a total suspension, or removal of the disease, in cases where it is judiciously recommended. Short voyages are often more injurious than beneficial. To a delicate person going out to India, a voyage around the Cape is of great benefit; but the most serviceable voyage is one to Australia, New Zeeland, and back again. The great advantage is the enjoyment of a perpetual summer, which may be effected by leaving this country about the beginning or middle of October, and returning before the cold weather sets in at the antipodes.

Consumption.—One in a deep consumption was advised to drink nothing but water, and eat nothing but water gruel, without salt or sugar. In three months' time he was quite well.

Take no food but new buttermilk, churned in a bottle, and white bread. I have known this successful; or use as common drink, spring water and new milk, each 1 qt., and sugar candy, 2 ozs.; or boil 2 handfuls of sorrel in 1 pt. of whey, strain it, and drink a glass thrice a day; or turn a pt. of skimmed milk with ½ pt. of small beer. Boil in this whey about 20 ivy-leaves, and 2 or 3 sprigs of hyssop. Drink half over night, the rest in the morning. Do this if needful, for 2 months daily. This has cured in a desperate case. Tried; or every morning cut a little turf of fresh earth, and laying down, breathe in the hole for a quarter of an hour; or take in for a quarter of an hour, morning and evening, the steam of white resin and beeswax, boiling on a hot fire-shovel. This has cured one who was in the third stage of consumption; or take morning and evening a teaspoon of white resin powdered and mixed with honey. This cured one in less than a month, who was near death; or drink thrice a day 2 spoons of juice of water cresses. This has cured a deep consumption. In the last stage, suck a healthy woman daily. This has cured my father. For diet, use milk and apples, or water gruel, made with fine flour. Drink cider whey, barley water, sharpened with lemon juice, or apple water. So long as the tickling cough continues, chew well, and swallow a mouthful or two of biscuit or crust of bread twice a day. If you cannot swallow it, spit it out. This will always shorten the fit, and would often prevent a consumption.

Consumption.—Useful Drink for.—Colt'sfoot, 2 ozs.; horehound, rue, of each 1 oz.; and blood-root, 3 drs. Boil in 3 qts. of water down to 2 qts. Strain, and to the liquor, add of figs and sugar, of each 4 ozs., and boil 15 minutes. Take a wine glass 3 or 4 times a day.

CONVULSIONS.—In Children.—They originate in some derangement or irritation of the bowels, stomach, brain, or from teething. Give an aperient, as magnesia and rhubarb, and a warm bath at about 90°, and apply to the head linen dipped in the water. The following powder is useful:

Rhubarb in powder, 8 grs.; super-sulphate of potash, 12 grs. Mix. Give also a little syrup of poppies. If aperients cannot be taken give a mild injection; as a little epsom salts in barley gruel, with a little butter; or a weak solution of salt and water, with a few drops of oil, or butter.

Convulsions often arise from over-feeding; this must be avoided.

If indigestible food has been taken, give an emetic, the wine of ipecacuanha; or if the patient cannot be sufficiently roused from sleep, so as to take the emetic, tickle the back part of the mouth with a feather to produce the effect.

If the convulsions are obstinate, apply friction along the spine, when in the bath; or out of it, rub the spine with an anodyne composed of 10 drops of laudanum, 10 drops of oil, and 6 drops of tincture of cayenne. Mustard plasters may be applied a minute or two to the legs and feet. If convulsions are caused by teething, the gums must be lanced a little.

CHOLERA.—A compound of two Greek words, *chole*, bile, and *rein*, to flow. Its literal meaning is, a discharge of bile. But the word *cholera* designates that dreadful Asiatic disease which is so very fatal. In this disease, the secretion of bile is suspended, and the evacuations are entirely free from it. Therefore there are two species of cholera—the *English*, and the *Asiatic*.

The *English Cholera*, or Bilious Diarrhea, attacks suddenly, with nausea, purging and vomiting; sometimes painful colicky griping in the bowels. The evacuations are thin and watery, and at last become very bilious, the color sometimes green, at other times approximating to black, indicating vitiated bile caused by unhealthy secretions during its passage through the alimentary canal. If the disease is not restrained, the vomiting, retching, and spasmodic pain increases, accompanied with cramp in the legs, and muscles of the abdomen. Coldness of the extremities, cold sweats, and fainting sometimes occur. Sometimes this disease ends in death, especially with old and delicate subjects. But in this country it is seldom fatal.

It is caused by intemperance, by a vitiated atmosphere, by eating unwholesome food, and unripe fruits. In the treatment of it, it is necessary to neutralize the acid, vitiated or acrid bile, and produce a determination to the surface. As soon as the symptoms appear, give the *Neutralizing Mixture* (which see). If vomited, repeat the dose, and it will soon produce a beneficial effect, subduing the irritation, nausea, vomiting, and passing through the alimentary canal, changing its contents to the most healthy state. It is useful to bathe the feet in hot water and salt, and when the disease is violent, to give a vapor bath and to check the vomiting, salt in vinegar or brandy. To allay the pain, foment the belly and breast with the following:

Cayenne pepper, ½ oz.; spirits of wine, ½ pt.; vinegar, 1 gill Simmer a few minutes; then add 1 tea-spoon of tincture of opium, and 2 table-spoons of turpentine.

Apply flannels dipped in it warm to the stomach. Hops and camomile flowers simmered in vinegar, make an excellent fomentation. The drink should be toast and water. Milk thickened with arrow-root, tapioca, sago, or slippery elm, may be taken as food.

In the *Asiatic Cholera*, there is a total suppression of bile, and a profuse cold, clammy sweat over the body; the cramps become fearful, the stomach and bowels are emptied by vomit, etc., and exhaustion becomes apparent, giddiness, deafness, sinking of the eyes and nostrils, blueness of the skin, lips and nails; weakness of voice, etc., are often fatal symptoms.

To cure the same, as for English cholera, but more active. Give the *Neutralizing Mixture;* and this injection:

Bogberry, 3 drs.; scullcap, 1 dr.; slippery elm, 1 dr.; boiling water, ½ pt. Infuse ten minutes; then add 2 tea-spoons of tincture of myrrh, 8 drops of laudanum, and 1 tea-spoon of carbonate of soda.

Foment as in English cholera, or with the *Rheumatic Liniment.* Apply as hot as possible. Apply also friction to the limbs; or apply hot bricks, wrapped in vinegar cloths, to the feet, legs, and sides. Give a tea-spoon of the *Anti-Cholera Drops* every half hour.

The following *Anti-Cholera Mixture* is a sovereign remedy:

Tormentil root, 1 oz.; bayberry bark, 1 oz.; cayenne pepper, ¼ oz.; carbonate of soda, ¼ oz. Simmer forty minutes in 3 pts. of water, down to 1 qt. Strain, and add tincture of myrrh, 2 ozs., and 1 dr. of camphor, dissolved in spirits of wine.

In the first attack of cholera, give a wine-glass; place the feet in hot salt and water, or mustard and water, and repeat the mixture every twenty minutes, and apply mustard plaster, and the hop poultice to the stomach. Rub freely the cramped and drawn parts of the body with boiled cayenne pepper and vinegar; and the effects will in most cases appear like magic. Such treatment has cured thousands upon thousands.

Cholera in Infants is treated in the same way as English cholera, but in a milder and more restricted manner.

Cholera.—Its Causes, Symptoms, and Treatment.—The following clear and comprehensive description of the cholera symptoms, with the mode of treatment found most efficacious last year by the missionaries in Turkey, was contributed to the *Christian Mirror* a few months since by Dr. Hamlin, an American missionary of thirty or forty years' standing, at Constantinople. We commend it to the public as the best article of the kind that has been published. So valuable indeed has it been regarded, that it has just been issued in a neat little pamphlet, just large enough to go nicely into a pocket-book or a person's vest pocket, Henry Hoyt, of Boston, being the publisher in this form. It would be well for every one to keep a copy constantly with him during the cholera season, besides having the medicines prescribed where they will be readily accessible in case of need. Mr. Hamlin says:

Having been providentially compelled to have a good degree of practical acquaintance with it, and to see it in all its forms and stages during each of its invasions of Constantinople, I wish to make to my friends in America some suggestions which may relieve anxiety, or be of practical use.

On the approach of the cholera, every family should be prepared to treat it without waiting for a physician. It does its work so expeditiously, that while you are waiting for the doctor it is done.

If you prepare for it, it will not come. I think there is no disease which may be avoided with so much certainty as the cholera. But providential circumstances, or the thoughtless indiscretions of some member of a household may invite the attack, and the challenge will never be refused. It will probably be made in the night, your physician has been called in another direction, and you must treat the case yourself or it will be fatal.

CAUSES OF ATTACK.—I have personally investigated at least one hundred cases, and not less than three-fourths could be traced directly to improper diet, or to intoxicating drinks, or to both united. Of the remainder, suppressed perspiration would comprise a large number. A strong, healthy, temperate, laboring man had a severe attack of cholera, and after the danger had passed I was curious to ascertain the cause. He had been cautious and prudent in his diet. He used nothing intoxicating. His residence was in a good locality. But after some hours of hard labor and very profuse perspiration, he had lain down to take his customary nap right against an open window, through

which *a very refreshing breeze was blowing.* Another cause is drinking largely of cold water when hot and thirsty. Great fatigue, great anxiety, fright, fear, all figure among inciting causes. If one can avoid all these, he is as safe from the cholera as from being swept away by a comet.

SYMPTOMS OF AN ATTACK.—While cholera is prevalent in a place, almost every one experiences more or less disturbance of digestion. It is doubtless in part imaginary. Every one notices the slightest variation of feeling, and this gives an importance to mere trifles. There is often a slight nausea, or transient pains, or rumbling sounds, when *no attack follows.* No one is entirely free from these. But when diarrhea commences, though painless and slight, it is in reality the skirmishing party of the advancing column. It will have at first no single characteristic of Asiatic cholera. But do not be deceived. It *is the cholera*, nevertheless. Wait a little, give it time to get hold, say to yourself, "I feel perfectly well, it will soon pass off," and in a short time you will repent of your folly in vain. I have seen many a one commit suicide in this way.

Sometimes, though rarely, the attack commences with vomiting. But in whatever way it commences, it is sure to *hold on.* In a very few hours the patient may sink into the collapse. The hands and feet become cold and purplish, the countenance at first nervous and anxious, becomes gloomy and apathetic, although a mental restlessness and raging thirst torment the sufferer while the powers of life are ebbing. The intellect remains clear, but all the social and moral feelings seem wonderfully to *collapse* with the physical powers. The patient knows he is to die, but cares not a snap about it.

In some cases, though rarely, the diarrhea continues for a day or two, and the foolish person keeps about, then suddenly sinks, sends for a physician, and before he arrives "dies as the fool dieth."

TREATMENT.—*For stopping the incipient diarrhea.*—The mixture which I used in 1848 with great success, and again in 1855, has during this epidemic been used by thousands, and although the attacks have been more sudden and violent, it has fully established its reputation for efficiency and perfect safety. It consists of equal parts by measure of (1) laudanum and spirits of camphor; (2) tincture of rhubarb. [Opii Tinctura, 1 dr.; Camphoræ Tinct., 1 dr.; Rhei Tinct., 2 dr.; Misce.] In an adult, 30 drops on a lump of sugar will often check the diarrhea. But to prevent its return, care should always be taken to continue the medicine every four hours in diminishing doses, 25, 20, 15, 10, 9, when careful diet is all that will be needed.

In case the first does not stay the diarrhea, continue to give in increasing doses 35, 40, 45, 60, at every movement of the bowels. Large doses will produce no injury while the diarrhea lasts. When that is checked, then is the time for caution. I have never seen a case of diarrhea taken in season which was not thus controlled, but some cases of advanced diarrhea, and especially of relapse, paid no heed to it whatever. As soon as this becomes apparent, I have always resorted to this course: Prepare a tea-cup of starch boiled as for use in starching linen, and stir into it a full tea-spoon of laudanum, for an injection. Give one-third at each movement of the bowels. In one desperate case, abandoned as hopeless by a physician, I could not stop the diarrhea until the seventh injection, which contained nearly a tea-spoon of laudanum. The patient recovered and is in perfect health. At the same time I used prepared chalk in 10-grain doses, with a few drops of laudanum and camphor to each. But whatever course is

pursued it must be followed up, and the diarrhea controlled, or the patient is lost.

Mustard Poultices.—These should be applied to the pit of the stomach, and kept on till the surface is well reddened.

The patient, however well he may feel, should rigidly observe perfect rest. To lie quietly on the back is one-half the battle In that position the enemy fires over you, but the minute you rise you are hit.

When the attack comes in the form of diarrhea, these directions will enable every one to meet it successfully.

But when the attack is more violent, and there is vomiting, or vomiting and purging, perhaps also cramps and colic pains, the following mixture is far more effective and should always be resorted to. The missionaries Messrs. Long, Trowbridge and Washburn have used it in very many cases and with wonderful success. It consists of equal parts of laudanum, tincture of capsicum, tincture of ginger, and tincture of cardamon seeds. DOSE.—30 to 40 drops, or ½ a tea-spoon in a little water, and to be increased according to the urgency of the case. In case the first dose should be ejected, the second, which should stand ready, should be given immediately after the spasm of vomiting has ceased. During this late cholera siege, no one of us failed of controlling the vomiting and also the purging by, at most, the third dose. We have, however, invariably made use of large mustard poultices of strong, pure mustard, applied to the stomach, bowels, calves of the legs, feet, etc., as the case seemed to require.

Collapse.—This is simply a more advanced stage of the disease. It indicates the gradual failing of all the powers of life. It is difficult to say when a case has become hopeless. At a certain point the body of the patient begins to emit a peculiar odor which I call the *death odor*, for when that has become decided and unmistakable, I have never known the patient to recover. I have repeatedly worked upon such cases for hours with no permanent result. But the blue color, the cold extremities, the deeply sunken eye, the vanishing pulse, are no signs that the case is hopeless. Scores of such cases in the recent epidemic have recovered. In addition to the second mixture, *brandy* (a table-spoon every half hour), bottles of hot water surrounding the patient, especially the extremities, mustard plasters, and friction, will often in an hour or two work wonders.

Thirst.—In these and in all advanced cases thirst creates intense suffering. The sufferer craves water, and as sure as he gratifies the craving the worst symptoms return, and he falls a victim to the transient gratification. The only safe way is to have a faithful friend or attendant, who will not heed his entreaties. The suffering may be, however, safely alleviated and rendered endurable. Frequent gurgling the throat and washing out the mouth will bring some relief. A spoonful of gum arabic water, or of camomile tea, may frequently be given to wet the throat. "Sydenham's White decoction" may also be given, both as a beverage and nourishment, in small quantities, frequently. In a day or two the suffering from thirst will cease. In a large majority it has not been intense for more than 24 hours.

Diet.—Rice-water, arrow-root, Sydenham's White Decoction, crust water, camomile tea, are the best articles for a day or two after the attack is controlled. Camomile is very valuable in restoring the tone of the stomach.

The Typhoid Fever.—A typhoid state for a few days will follow all severe cases. There is nothing alarming in this. It has very rarely

proved fatal. Patience and careful nursing will bring it all right. The greatest danger is from drinking too freely. When the patient seemed to be sinking, a little brandy and water or arrow-root and brandy have revived him. In this terrible visitation of the cholera, we have considered ourselves perfectly armed and equipped, with a hand-bag containing mixture No. 1, mixture No. 2, (for vomiting, etc.,) a few pounds of powdered mustard, a bottle of brandy, a paper of camomile flowers, and a paper of gum arabic.

I lay no claim to originality in recommending this course of treatment, and have adopted it from suggestions of able and experienced physicians. Having been the only doctor of many poor families living near me, I have tried various remedies recommended, but I have found none to be at all compared with the above. During the recent cholera I cannot find that any treatment has been so successful as this.

Contagion.—The idea of contagion should be abandoned. All the missionaries who have been most with the most malignant cases day after day, are fully convinced of the non-contagiousness of the cholera. The incipient attacks which all have suffered from are to be attributed to great fatigue, making the constitution liable to an attack.

DEATH, TESTS OF.—By this term is understood that condition of the animal frame when all the functions which constitute the mystery of life cease to act, and the organized tissues, no longer supported in their integrity by the vital stimulus, run rapidly into decay. Death is indicated by a universal coldness of the body; by a partially open mouth, closed eyelids, and sunken eyes; by an extreme pallor of the face, sometimes showing a yellow or greenish hue; by a lividity of the lips and orbits, and by an extreme flaccidity of all the joints. This suppleness of the joints, however, only endures for a very brief time, except in some cases of poisoning, being succeeded, in a period varying, according to circumstances, from two to six hours, by a general rigidity or stiffening of all the muscular fibres, and by a tension of the ligaments, by which the body becomes, in a measure, one firm and indurated mass. This remarkable rigidity, common to all animal fibre, is professionally known as the *rigor mortis*, or the stiffening of death. As the flaccidity which follows immediate dissolution is but of brief duration, being succeeded by stiffening, so the *rigor mortis* is also but of limited continuance, and though longer in its endurance than the first, in its turn gives way on the approach of decomposition, and as decay sets in, the rigid fibre gives place to the relaxed and clammy muscle, till final corruption leaves no vestige of the once tense corpse.

The means that have been adopted to discover if any spark of life remains in an apparently dead body consist in testing in various ways the respiratory powers, and the nervous susceptibility of the person supposed to be dead. The first consists in applying a very downy feather to the lips, or a looking-glass over the mouth. If one of the filaments of the feather is stirred, or the slightest obscuration or dimness is cast on the mirror, it is held to be an evidence that respiration still exists. Another test formerly known was placing the body on the back, and standing a glass brimful of water on the exposed chest, and carefully noting if any motion in the fluid was perceptible, as the heaving of the chest, however slight, in the act of respiration, would agitate or displace the water. The fumes of strong ammonia held to the nose, and the tickling the nostrils with feathers, were also means at one time employed to impart hope or to confirm the fears of the mourners. However ingenious such tests were, all

satisfactory in many cases, there are diseases of the nervous system where death is so closely simulated, that such means would fail to realize any favorable results.

Among the most certain and reliable signs of death are—the firmness of the muscles of the fallen jaw; the drawn-in nostrils, and the livid hue on the lips and around the eyes; and though in some cases of poisoning there is no *rigor mortis*, in general it may be regarded as infallible. When discoloration—the first sign of decomposition—sets in, all further fear of a premature interment may cease, and the body be safely buried; these marks usually begin on the fingers, near the nails, and with the toes and feet. In cases of sudden death, where there are reasons to believe the case to be only one of suspended animation, hot bottles are to be applied to the feet, legs, and arm-pits; heated tiles placed under the spine, and friction with the hand used over the body, with electricity, and such means adopted as are advised in Drowning (which see), Lightning, Starvation, Exposure to Cold, etc. In such cases, the treatment must be persevered in for six, eight, or ten hours, and, as soon as convenient, either some weak brandy and water or beef tea thrown into the system by the stomach-pump or the enema syringe.

A DIABETES.—Drink wine, boiled with ginger, as much and as often as your strength will bear. Let your drink be milk and water. All milk meats are good; or, drink three or four times a day a quarter of a pint of alum posset, putting 3 drs. of alum to 4 pts. of milk. It seldom fails to cure in eight or ten days: or, infuse ½ oz. of cantharides in a pint of elixir of vitriol. Give from ten to thirty drops in Bristol water twice or thrice a day.

DROPSY.—From the Greek, *udor*, water, and *opsis*, an appearance. It denotes the effusion of water, or rather serous fluid into any cavity of the body, or into the cellular tissues under the skin.

It is indicated by distension of the belly, difficult breathing, dry skin, immoderate thirst, a dry cough, swelling of the feet and legs, deficient urine, and deficient perspiration. Dropsy is a symptom of disease, rather than itself a disease, and generally the original cause is a morbid change in one or more of the principal organs of the body, the heart, liver, or kidneys. It is caused by a loss of vitality in the capillary exhalents of the blood vessels by which they are deprived of their elasticity or contractility, consequent upon the loss of the electric fluid, or the nervous energy upon which their contractility chiefly depends; and from a deficiency of iron in the blood

Give a vapor bath made of bitter herbs. (See "Vapor Bath.") Drink the Composition Powder tea, sweetened. Give diuretics, and a pill made of cayenne, colocynth and rhubarb; and also the *Diuretic Infusion*. Keep up the perspiration when deficient; and foment the body daily with the *Stimulating Liniment*. The compound extract of jalap is very effective in evacuating the water; or, mustard ½ oz.; juniper berries, milkweed root, horse radish root; black alder bark, mandrake root, bitter-sweet bark, of each, 1 oz. Bruise them, and infuse in 3 qts. of hot water, adding the juice of a lemon. A wine glass two or three times a day; or, take as much as lies upon a sixpence of powdered laurel leaves, every second or third day. It works both ways; or, make tea of roots of dwarf elder. It works by urine. Every twelve or fourteen minutes (that is, after every discharge) drink a tea-cup. I have known a dropsy cured by this in twelve hours' time; or, one was cured by taking a drachm of nitre, every morning, in a little ale; or, tar-water drank twice a day has cured many; so has an infusion of

juniper berries, roasted, and made into a liquor like coffee; or, three spoons of the juice of leeks, or elder leaves.—Tried. This cured the windy dropsy; or, half a pint of decoction of butcher's broom, (intermixing purges twice or thrice a week.) The proper purge is ten grains of jalap with six of powdered ginger. It may be increased or lessened according to the strength of the patient; or, of the decoction of the tops of oak boughs. This cured an inveterate dropsy in fifteen days; or, take senna, cream of tartar, jalap, ½ oz. of each. Mix them and take a drachm every morning in broth. It usually cures in twenty days. This is nearly the same as Dr. Ward's powder; he says it seldom fails, either in the watery or windy dropsy.—*Rev. John Wesley.*

DYSENTERY, OR BLOODY FLUX.—From the Greek, *dus*, painful, and *enteron*, the bowels. It is inflammation of the mucous membrane of the large intestines, especially the colon. It is attended by frequent bloody stools, straining, nausea, long attempts at evacuation, and often great pain. There is loss of appetite, strength, and great lowness of spirits. The evacuations increase, and become more fœtid. It often ends in death. It is *caused* by obstructed perspiration, morbid humors, unwholesome diet, night air, damp beds, wet clothes, intemperance, and infection, in close habitations, prison cells, etc. It is very prevalent in tropical climates.

To *cure*, give gentle emetics; and mild purgatives, if needful. The "Neutralizing Mixture," (which see) is of great efficacy—a table-spoon per hour. It will neutralize the acidity of the stomach, relieve the spasms, etc., and effect a wondrous change. Should inflammation continue, give an injection; as, milk, ½ pt; mucilage of slippery elm bark, ½ pt.; treacle, ¼ pt.; olive oil, ½ a wine glass; and a tea spoon of salt. This affords great relief. Keep up a gentle perspiration by the Sudorific Powders, or by the application of hot bricks, as before stated. See also "Diaphoretic Powder." If there be local pain, foment with a decoction of vinegar, hops, tansy, horehound, and catnip. Give warm diluents, and mucilaginous drinks, and if putresence appears give yeast in a decoction of logwood. The following has been recommended:

Prepared chalk, ½ dr.; compound powder of gum dragon, 2½ drs.; aromatic confection, 1 dr.; tincture of catechu, and of kino, 2 drs. each; laudanum, ½ dr.; aromatic spirit of ammonia, 1½ drs; and cinnamon water, 3 or 4 ozs. DOSE.—Two table-spoons every three hours. Or, simmer 1 oz. of blackberry root bark, and 2 ozs. of raspberry leaves in a quart of water for 40 minutes, strain and add 1½ ozs. of tincture of myrrh, and a little sugar. Take a wine glass every half hour. It seldom fails.

Butter just churned is said to be a sure cure; it must be unsalted, and clarified over the fire. Two table-spoons several times a day.

DIARRHEA.—From the Greek, *dia*, *rheo*, to flow through. It is an undue relaxed state of the bowels, as induced by improper food, drunkenness, cold; or it may be a symptom of another disease, as consumption, etc.

The "Neutralizing Mixture" will be found efficacious in this complaint; or, take a tea-spoon of "Composition Powder," and one of tincture of myrrh, and keep the patient warm. The following are good remedies:

To 1 qt. of blackberry juice add 1 lb. of white sugar, 1 table-spoon of cloves, 1 of allspice, 1 of cinnamon, and 1 of nutmeg. Boil all together fifteen minutes; add a wine glass of whisky, brandy, or rum. Bottle while hot, cork tight and seal. This is almost a specific in

diarrhea. DOSE.—A wine glass for an adult—half for a child—will often cure diarrhea. Take three or four times a day if the case is severe; or, confection of catechu, 2 drs.; cinnamon water, 4 ozs.; syrup of white poppies, 1 oz.; mix together. One or two table-spoons to be taken twice or thrice a day as required; for children under ten years of age, a dessert-spoon to be used; under two years, a tea-spoon, also two or three times a day, as above stated.

Draught for Diarrhea.—Take tincture of opium, 30 drops; prepared chalk, 2 drs.; powdered gum, 4 drs.; tincture of catechu, 2 drs.; rose water, 2 ozs. Mix, and take a table-spoon three or four times a day; or, fill a small basin with dry flour, tightly cover it with a greased cloth; boil it three hours. Then let it cool. For use, grate a dessert-spoon of it into peppermint water; more for an adult. Or, make a strong tea of blackberry leaves, or raspberry leaves. I have known the latter superior to all physicians. Follow it with a little port wine, grated nutmeg and ginger. Or, take of poplar bark, ½ oz.; prickly ash berries, ½ oz.; fleabane, ½ oz.; slippery elm, 1 dr.; pour on them a pint of boiling water; infuse two or three hours. Tonics must be given after the cessation of the relax.

Sure Cure for Diarrhea.—A correspondent of the *Country Gentleman* presents a remedy for diarrhea which he never knew to fail for the past twenty-five years of its use in his family. It is simply a dose of laudanum and oil (a table-spoon of castor oil with twenty drops of laudanum in it). The laudanum acts as an astringent, and the oil heals and carries off the effect of the disease.

Diarrhea, or a looseness of the bowels, is an affection to which every age, sex, and condition is liable, and when not excited by sudden changes of the weather, or the exposure of a hot body to wet or cold, is most frequently induced by some acid or indigestible substance taken into the stomach; and though common to all seasons of the year, is far more prevalent in the autumn than at any other period of the twelve months, showing that it is frequently due as much to atmospheric influences as to partaking in excess of fruit, vegetables, or cucumbers—the articles most generally accused of producing the disease. That noxious gases, bad drainage, and imperfect ventilation are prolific exciting causes of diarrhea is now universally admitted, and whenever practicable, such measures should be adopted for correcting those causes as will, for a season at least, render them inoperative for mischief.

The symptoms of diarrhea are a weight and uneasiness in the lower part of the abdomen, accompanied with griping more or less severe; flatulence, succeeded by frequent feculent evacuations, and often attended with nausea and vomiting, great thirst, a white coated tongue, dry skin, and cold feet.

TREATMENT.—In general, diarrhea is easily relieved by taking a mild aperient, especially a moderate dose of castor oil, and when the griping is severe, from 20 to 25 drops of laudanum with it. When, however, this does not check the evacuations, and as, when unrelieved, diarrhea is apt to degenerate into cholera, it becomes necessary to adopt some direct practice. The vomiting is to be checked by effervescing draughts, with or without brandy, hot water to the feet, and a tea-spoon of tincture kino in a wine glass of water, every hour, for two or three times, or till the bowels are checked in their action; or a dose of the following mixture can be substituted every quarter or half hour. Take of carbonate of ammonia, ½ dr.; prepared chalk, 6 drs.; extract of catechu, 1 dr.; peppermint water, 6 ozs.; spirits of sal volatile, 1 dr. Mix, and give two table-spoons, as directed above.

When there is much pain, 1 dr. of laudanum is to be added to the mixture. As small a quantity of liquid as possible should be taken, but as much boiled rice or rice pudding eaten as the stomach will digest with comfort; hard eggs are also of service; vegetables, however, fruits, broths, or any liquid potation—except a small quantity of Brandy and water, if required—must be strictly avoided. It must be borne in mind, that the above doses are designed for adults; that unless specially ordered in our prescriptions, opium or laudanum are never to be given to children; and that the quantity of kino or chalk mixture must be regulated according to their ages.

When the diarrhea has been subdued, care must be taken, in returning to the ordinary diet, that the stomach is not overloaded, especially by hard and indigestible meat, or by flatulent vegetables; and if there is any pain or indigestion, two spoons of infusion of camomile, in which 10 grs. of carbonate of soda have been dissolved, should be taken twice a day for a few times, till the stomach recovers its tone, when, if requisite, a compound colocynth pill may be taken to cleanse the alimentary canal. See "Cholera," "Dysentery." For the diarrhea of children, see "Infants, Diseases of."

DIPHTHERIA.—"I have had the treatment of several cases, and have uniformly been successful; the remedy is very simple. It is the external application of water to the throat, at degrees of temperature alternating from the highest that the human skin will bear, down to almost zero. I am prepared to verify that by proof. A. Henderson, M.R.C.S., Eng. 13, Upper Seymour St., Portman Square, London, 1858

M. Roche mentions in *L' Union Medicale* that he had saved six patients in six cases of diphtheria by the following mode of treatment. The false membranes were first freely cauterized with lunar caustic, and injections then made every hour against the fauces with a solution of common salt, the strength of the solution being such as not to create nausea. Chlorate of potash was also given internally; and tincture of iodine as a topical application, was used in half the cases; but M. Roche considers that the irrigations with the solution of common salt were the chief agents in the case.

Diphtheria—Remedy for.—Make two small bags to reach from ear to ear, and fill them with wood ashes and salt; dip them in hot water, and wring them out so that they will not drip, and apply them to the throat; cover up the whole with a flannel cloth, and change them as often as they become cool, until the throat becomes irritated, near blistering. For children it is necessary to put flannel cloths between the ashes and the throat to prevent blistering. When the ashes have been on a sufficient time take a wet flannel cloth and rub it with castile soap until it is covered with a thick lather; dip it in hot water, and apply it to the throat, and change as they cool; at the same time use a gargle made of one tea-spoon of cayenne pepper, one of salt, one of molasses, in a tea-cup of hot water, and when cool, add one-fourth as much cider vinegar, and gargle every 15 minutes, until the patient requires sleep. A gargle made of castile soap is good to be used part of the time."

A correspondent in Maine, in sending the above remedy, says there had been a number of deaths from diphtheria until this remedy was used, since then all had recovered.

Diphtheria.—A gentleman who has administered the following remedy for diphtheria says that it has always proved effectual: Take a tobacco pipe, place a live coal in the bowl, drop a little tar upon the coal, and let the patient draw smoke into the mouth and discharge it through the nostrils. Safe and simple.

Diphtheria—Specific for.—The Italian journals publish a letter from Dr. Giovanni Calligara, describing the remarkable success which has attended his treatment of diphtheria with phenic acid. He relates the losses he formerly experienced among his patients when treating them with emollients, solvents, and cauterization with hydro-chloric acid, and observes that this cauterization can no more eradicate the morbid principle than tearing the leaves off a plant will destroy the root. He now simply uses a gargle of phenic acid and distilled water, with external applications of new flannel; the food and drink to be taken cold. After the adoption of this treatment, Dr. Calligara lost but one patient out of fifty-eight. He requested the Italian journals to publish this discovery. Phenic acid is the agent which is now being used in this country as a remedy for cancer, and seems likely to affect an immense saving of lives formerly hopelessly sacrificed to that disease.

DEAFNESS.—Take three drops of sheep's gall, warm, and drop it into the ear on going to bed. The ear must be thoroughly syringed with warm soap and water in the morning. The gall must be applied for three successive nights. It is only efficacious when the deafness is produced by cold. The most convenient way of warming the gall is by holding it in a silver spoon over the flame of a candle. The above remedy has been frequently tried with perfect success.

Deafness.—Fox-glove leaves well bruised; mix the juice with double the quantity of brandy. Keep for use. Drop one drop into the ear once a day, and place in the ear constantly a piece of cotton saturated with it. Or, clean the ear well out with warm water, dry it, and then soak cotton in glycerine, and put it into the ear, moving it backward and forward, to lubricate it thoroughly. Or, syringe the ears well with warm milk and oil; then take opodeldoc, and oil of almonds, of each, ¼ oz., and apply with cotton wool.

Or, fill a clean stone bottle with hot water; lay the ear on the bottle as hot as it can be borne, so that the steam may ascend into it every night when going to bed, for five or ten minutes.

Or, take fine black wool, dip it in camphorated oil, and put it into the ear; as it dries, dip it again; and keep it moistened in the ear for two or three weeks.

Be electrified through the ear. Or, put a little salt in the ear mixed with sweet oil. Or, three drops of onion juice at lying down, keeping it in with wool. Or, mix brandy and sweet oil; dip black wool in this and put it into the ear. When it grows dry, wash it well in brandy; dip it and put it in again. If attended with headache, peel a clove of garlic, dip it in honey. Apply it with black wool. Previously drop into the ear a few drops of the juice. A mixture of 10 drops of spirit of turpentine with 1 oz. of almond oil, using black wool, will tend to the cure of deafness arising from diseased ceruminous glands. If deafness arises from wax, syringe the ear with warm water, applying the night before a little glycerine.

Deafness Cured by Ether.—A poor French governess, Mad'lle Cleret, has succeeded in partially curing several persons afflicted with deafness and loss of speech. The French Academy have awarded the Monthyon Prize for the discovery, which has been proved innocuous. The method consists in introducing sulphuric ether into the aural conduit, in doses of 2 to 8 drops a day for twenty days, when the application is suspended for a short time, and again commenced. A gunner's mate, aged 51, had been attacked six months before with acute rheumatism, which became chronic and complicated, with deafness in the

left ear, and difficulty of hearing in the right one. There was frequent singing in both ears, and the deafness increased or diminished with the rheumatic pains. At the first, a few drops of ether were instilled into both his ears, when he immediately experienced a feeling of expansion within, with a slight pain, and from that moment he could distinguish sounds less confusedly. On the following morning he declared he could hear with his right ear quite as well as before his illness; the installation was therefore only repeated in the left ear, and on the fourth day he declared himself quite cured. Another case, similar to this, is reported by Dr. Berlemont, of Joncourt; and Dr. Coursier, of Honnecourt, announces that he has been treating six patients, between five and fifteen years of age, for some time with ether, to their manifest advantage.

An eminent physician says: "Take sassafras oil, 5 drops; sweet oil, ½ oz. Mix, and drop into the ear once or twice a day." He says that this seldom fails. Or, saturate a little cotton wool with tincture of lobelia, and insert twice a day.

DELIRIUM TREMENS.—This is the disease of drunkards, and those who take narcotics, as opium, etc. It may be called "the *brain fever of drunkards.*" The person is tremulous, has nausea, vomiting and wakefulness, restlessness; he raves, and imagines snakes, demons, etc., are about him. This disease doubtless arises from extreme stimulus of the brain.

TO CURE.—First allay the paroxysm, calm and support the nervous system, by giving brandy and other spirits. The redness of the face, and the pulsation of the arteries, heart, etc., indicate determination of blood to the head. Equalize the circulation by bathing the feet and legs in warm lye-water; then apply mustard plasters to the feet and nape of the neck. Give a purge; and now and then a cup of valerian, scullcap, or strong hop tea, or from 10 to 20 drops of laudanum. Emetics are very useful, and may be given in the same kind of spirits the patient has been accustomed to take. A strong decoction of wormwood is successfully used in hospitals.

EYES, WEAK AND SORE.—Sulphate of zinc, 3 grs.; tincture of opium, 10 drops; water, 2 ozs. To be applied three or four times a day.

Eye, Blood-Shot.—Apply linen rags dipped in cold water for two or three hours. Or, apply boiled hyssop as a poultice. Very efficacious.—*Wesley.*

Eye-Bright.—This plant is useful in affections of the eyes, as it improves the vision, especially in old age. (See *Robinson's Herbal.*)

Eyes, Bruised.—Frequently bathe in water with a little carbonate of soda dissolved in. Or, apply bread poultices pretty warm; change often. Or, foment with a decoction of stramonium leaves, and then bind them on the eye. Or use slippery elm poultices.

Eye-Salve.—White or yellow wax, ½ oz.; red precipitate, 3 drs.; prepared tutty, or pure zinc powdered, 1 dr.; lard, 4 ozs. Melt and mix. Add 1½ drs. of camphor dissolved in oil.

Eyes, Inflammation of.—Mix bread crumbs with the white of an egg, 3 drops of laudanum, 3 drops of brandy, and a very little salt. Apply in a bag of thin soft linen or muslin. It is better to apply it at night, when lying down. It always affords relief. Drink also eye-bright tea, and wash the eyes with it.

Eye, Films.—Mix juice of eye-bright and juice of ground ivy with a little honey, and 2 or 3 grs. of bay salt. Drop it in, morning and evening.

Eye, Hot Humors.—Apply a few drops of double refined sugar melted in brandy. Or, boil a handful of bramble leaves with a little alum in a quart of spring water, to a pint. Drop this frequently into the eye. This likewise speedily cures cancers or any sores.

Eye, or Eyelids Inflamed.—Apply as a poultice, boiled, roasted or rotten apples warm. Or, wormwood tops with the yolk of an egg. This will hardly fail. Or, beat up the white of an egg with two spoons of white rose water into a white froth. Apply this on a fine rag, changing it so that it may not grow dry till the eye or eyelid is well. Tried.

Or, dissolve 1 oz. of fine gum arabic in 3 spoons of spring water; put a drop into the inner corner of the eye, from the point of a hair pencil, four or five times a day. At the same time take as much saltpetre as will lie upon a sixpence, dissolved in a glass of water, three or four times a day; abstaining from all liquors till cured. White bread poultices applied to the eyes in an inflamed state often occasion blindness.

Eyelid, Removing foreign bodies from beneath the.—M. Renard, in the case of small bodies which become entangled beneath the upper eyelid, recommends the following simple procedure, which will often dispense with all others: Take hold of the upper eyelid near its angles with the index finger and thumb of each hand, draw it gently forward and as low down as possible over the lower eyelid, and retain it in this position for about a minute, taking care to prevent the tears from flowing out. When, at the end of this time, you allow the eyelid to resume its place, a flood of tears washes out the foreign body, which will be found adhering to, or near to, the lower eyelid.

Eye Poultice.—Stir 2 drs. of powdered alum in the powdered whites of two eggs till a coagulum be formed. Place it between a piece of soft linen rag, and apply it. Very applicable for inflamed eyes attended with a purulent discharge, and for chilblains.

Eyes, Good for the.—To give brilliancy to the eyes, shut them early at night, and open them early in the morning; let the mind be constantly intent on the acquisition of benevolent feelings. This will scarcely ever fail to impart to the eyes an intelligent and amiable expression.

Eye-Sight, To Preserve.—Never sit long in absolute *gloom*, or exposed to a *blaze of light*. *Avoid reading small print.* Do not strain the eyes by looking at *minute* objects. Do not read in the dusk, nor by candle-light or gas-light, if the eyes be disordered. Do not permit the eyes to gaze on glaring objects, as the sun, or bright daylight, especially on opening the eyes in the morning. Do not let the curtains, walls, etc., be white; green is the best for curtains, etc. Avoid much exposure to cold easterly winds; especially avoid intemperance, and excessive venery, which are awfully destructive to eye-sight.

Eye Water.—Boil lightly 1 spoon of white copperas, and 3 spoons of salt, in 3 pts. of spring water. When it is cold, bottle it without straining. Put a drop or two in the eye morning and evening.

It takes away redness and soreness; it cures pearls, rheums, and often blindness. If it makes the eye smart, add more water to it.

Another.—Stamp and strain ground ivy, celandine, and daisies, an equal quantity; add a little rose-water and loaf sugar. Drop a drop or two at a time into the eye; it takes away all the inflammation, smarting, itching, spots, webs, etc.

Or take 2 table-spoons each of brandy, and rain water, and about

the size of a horse-bean of camphor. Dissolve the last in the first. Valuable.

Eye Water.—Take of white vitriol, 10 grs.; rose, or elder-flower water, 8 ounces. Mix.

Eye Water.—Half a pint of the best brandy, 2 pts. of spring water, and sugar of lead, 1 oz.; mix. This is a good eye water. Or, take 6 ozs. of rectified spirits of wine, dissolve in it 1 dr. of camphor, then add 2 small handfuls of dried elder flowers; infuse 24 hours. Bathe the forehead, over your eyes, and each temple, several times a day; meantime, dip a soft rag in stale small beer, new milk warm, and bathe each eye a few times gently, morning and evening. If it is a watery humor, wet the eyelids two or three times, but be sure to shut your eyes, or it will make them smart and burn excessively.

It is also a good remedy for the toothache, or swelled face, bruises, etc., used as a rubefacient.

Eyes, Weak.—May be relieved by washing them in cold water; or dissolve 4 grs. of sugar of lead, and crude sal-ammoniac, in 8 ozs. of water, to which add a few drops of laudanum. With this mixture bathe the eyes night and morning. Rose-water is also good for the eyes.

If lime gets into the eyes, a few drops of vinegar and water will dissolve and remove it. Almond or olive oil will do away with any hot fluid that may reach the eye. *Styes* should be bathed with warm water, and it is as well to take an aperient. A little ointment of citron and spermaceti may be used when the sty is broken.

FACE BURNING.—It arises from acidity of the stomach. Take 1 or 2 tea-spoons of magnesia in milk.

FAINTING FITS.—Remove the patient to the open air, and lay him in a horizontal position, with nothing tight left upon him. Should the case be obstinate, immerse the feet and legs in warm water, and apply spirits of hartshorn to the nostrils; and give a few drops in a glass of water, or hot brandy and water.

FELON, OR WHITLOW.—A very painful inflammation of the fingers, thumb, or hand. A whitlow resembles a felon, but it is not so deeply seated. It is often found at the root of the nail. Immerse the diseased finger in strong lye as long and as hot as can be borne several times a day. Constantly poultice it with a mixture of strong lye and elm bark, or elm bark and powdered linseed, and one poppy head softened in the lye. Or steam it well with the bitter herbs, which may be used several times; about twenty minutes at a time. Continue till well, or when it begins to suppurate; then will appear a white spot, which, when fully ripe, may be opened with a fine needle. Should gangrenous matter appear, apply a little vegetable caustic (which see). Apply the black salve, to heal it. Keep the bowels open, and take now and then the composition powder.

EAR-ACHE.—Place in the ear cotton wool moistened with sweet oil and laudanum. A flannel bag of salt, or camomile flowers, made very hot and applied to the ear at bed-time, will often give relief. Or, wet a rag with laudanum, and cover the ear with it. A bag of hops, a roasted onion, and hartshorn and oil, are household remedies. If it arises from heat, frequently apply wet cloths. If from cold, boil rue, or rosemary, and steam the ear through a funnel.

Ear-Ache.—Rub the ear hard for a quarter of an hour. Tried. Or, be electrified. Or, put in a roasted fig, or onion, as hot as may be. Or, blow the smoke of tobacco strongly into it. But if the ear-ache is caused by an inflammation of the uvula, it is cured in two

or three hours by receiving into the mouth the steam of bruised hemp-seed boiled in water.—*Wesley.*

Ear-Ache, from Worms.—Drop in warm milk, which brings them out. Or, juice of wormwood, which kills them.

Ear-Ache, Indian Cure for.—Take a piece of the lean of mutton, the size of a large walnut, put it into the fire and burn it for some time till it is reduced almost to a cinder; then put it into a piece of clean rag, and squeeze it until some moisture is expressed, which must be dropped into the ear as hot as the patient can bear it.

EPILEPSY, OR FALLING SICKNESS.—A sudden deprivation of sense, with violent convulsions of the whole system. Previous to the fit, there is a peculiar sensation felt by the patient; a scream or cry is then uttered, and he falls heavily to the ground. The eyes are fixed and reverted, and the convulsive agitations are violent; the teeth gnash against each other, the tongue projects, and is sadly bitten; the patient froths at the mouth, and is quite unconscious. "The period of recurrence of epileptic fits is very variable. Death sometimes occurs in the first; or, though rarely, recovery taking place, the disease never returns. Years may intervene, or an irregular period of months, weeks, or days, may separate the attacks." Epilepsy is more common in the night than in the day. As it becomes more firmly rooted in the system, the fits recur more frequently.

TREATMENT.—Prevent the patient from injuring himself during the fit. A piece of wood, india rubber, etc., should be placed between the teeth to prevent injury to the tongue. Remove all tight clothing, especially about the neck. Elevate the head and shoulders. If the fit does not depart, give one or two tea-spoons of the anti-spasmodic tincture. When the fit subsides, give a vapor bath, and an emetic two or three times a week. After the bath, rub the body over with the Stimulating Liniment. Gentle aperients should also be given now and then. Sponge the body every or every other morning with cold salt and water. Let the diet be very light and digestible. As it is a disease of debility, tonics should be employed; as Peruvian bark, snake root, lady's slipper, and peony, which may be obtained of the medical botanists. Boil them till strong; add sugar, and best Madeira wine. Dr. Beach says, that salt is very efficacious. "As soon as there are any premonitory symptoms, give a tea-spoon of salt, in a little water; and, if practicable, repeat it in twenty minutes; it shortens the fit, and may be taken twice or thrice a day. The shower bath may also be used. If the disease proceeds from worms, use the remedies in that case prescribed. A pill made of equal parts of scullcap, lobelia-seed, and cayenne, and mucilage, is very useful in this disease."

ERYSIPELAS.—Dr. Baumann employs collodion in all cases, and has found it, even in several cases of erysipelas of the face, and in one case of phlegmonous erysipelas of the thigh, highly useful. He first gives an emetic, and then daily applies collodion to the parts. The recovery is rapid, and no ill consequences have been observed.

Bathing the legs and feet in warm water is very serviceable. Some recommend the part to be covered with meal, or flour, or yeast. Some persons recommend a poultice of cranberries powdered fine, in a raw state.

A decoction of elder-leaves will promote perspiration; applying to the part a cloth dipped in lime-water. Or take gentle purgatives, as senna, manna, cream-of-tartar, with a little fennel-seed, to prevent griping. The vapor bath is very beneficial. The marshmallow ointment is very serviceable; also the elder ointment. Wash the parts oft

with the following liquid or tincture: Infuse 1 oz. of celandine leav in 1 pt. of whisky a few hours. Apply it when there is much i chin But the best application is a poultice made of slippery elm bark. M the bark with milk, buttermilk, or cream. Should there be ulceratio add brewer's yeast to the poultice. The diet should be cool and nou ishing.

Dr Beach, referring to a case, says: "The patient was so b that he had to sit in a chair five or six months, day and night," a the most eminent allopathic doctors could do him no good. "I us the pulverized *willow bark*, commonly called *pussy willow;* it was mix with cream, under which it grew better; it sloughed in several plac nearly to the bone. When the pain almost subsided, I applied t slippery elm bark and milk, and then the *black salve*, which effected cure in a few months."

FROST-BITE.—The parts of the body most exposed to the serio consequence of frost-bite are those farthest from the seat of circul tion, and the most exposed to a great degree of cold. These are, t toes and feet, fingers, ears, nose, and the cheeks below the eye.

The effect of intense cold is, in the first place, to deaden the sens bility of the part most exposed, which it does by contracting t vessels and driving the blood from the surface, when the part, losin its healthy vitality, is unable to resist the specific influence of the su rounding cold, and quickly falls a prey to the potency of the fros and, in a short time, a partial gives way to an absolute death, or mo tification of the member or organ, which soon after separates or fal off. To guard against the danger of frost-bites, the inhabitants very cold countries, as the Russians and Esquimaux, cover both t cartilage of the ear and the nose.

SYMPTOMS.—A frost-bite is known by the swelling and discolor tion, attended with pain, numbness, and a sense of pricking in t part, the color passing from a bright red till it becomes actually blac Sometimes, however, beyond a slight degree of heat, and itchin which soon passes off, the person is unconscious of the danger that taking place, till too late to save the doomed part.

TREATMENT.—The means employed in the treatment are extremel simple, but upon their *slow* and *cautious* use depends the entire chan of restoring the part or member to life; for should the temperature too quickly raised, or the circulation too suddenly restored, the perfe mortification the means are intended to avert will be certain to follo when all exertion is hopeless. For this purpose, the part must slowly rubbed with snow, or bathed with cold water, either in t open air or in a cold room, far removed from fire or warmth. Aft half an hour of such steady employment of the snow or water, two three tea-spoons of weak brandy and cold water are to be given, t process continued a little longer, a little more spirits and water admi istered, and the patient finally put to bed in cold sheets, and in a co room.

When the whole body has been rendered insensible by intens cold, as is sometimes the case in crossing the Alps, and in severe wi ters even in this country, the same treatment is to be adopted; b instead of rubbing a part only, the whole body must be rubbed wit snow, till the friction of several pairs of hands induces some return sensibility. As soon as that is effected, the body is to be carefull dried, and again rubbed with flannel; an enema of salt and wate with a small quantity of turpentine, is to be thrown into the bowels the patient put to bed in cold sheets, and in a room without a fire;

few spoons of gruel, with a little brandy, being given almost cold, as soon as he can swallow; and this, or weak wine and water, gradually and at long intervals given to him, the utmost care being taken to avoid exciting sudden reaction, headache, or fever; as most serious evils will occur should they be induced by hasty or powerful stimulants.

GOITRE, OR BRONCHOCELE, as the general enlargement of the thyroid gland of the throat is variously called, according to the country or locality in which the disease is prevalent.

The CAUSES of this unsightly deformity are far from being satisfactorily understood. By some it has been assigned to drinking snow water; by others, to water loaded with lime and magnesia; but it has been found epidemic in localities where neither of these circumstances prevail.

It more frequently attacks females than males, and, though present from early life, seldom becomes greatly enlarged till the person has turned forty; cases, however, not unfrequently occur where it advances from the age of puberty, and in a few years attains a considerable size. Those most frequently attacked with goitre are persons of a phlegmatic temperament.

TREATMENT.—Before commencing the treatment of this disease, a piece of tape should be first passed around the neck, and the exact size of the swelling and throat taken; the measure being put aside, that it may be used every month to test the progress of the cure, by showing how much less is the girth of both.

As iodine is the chief remedy on which any reliance can be placed, it must be used both externally and internally at the same time, though in different preparations.

Iodine Ointment.—Take of camphor, 1 dr.; iodine, ½ dr.; spirits of wine, 10 drops (to powder the camphor); white ointment, 1 oz. Mix.

A small piece of this ointment is to be rubbed steadily and effectually all over the tumor every night before going to bed, a warm bran poultice being laid over the whole to induce absorption. A poultice should also precede the use of the ointment, so as to relax and open the pores of the skin.

Mixture.—Take of hydriodate of potass, 1 dr.; infusion of gentian, 8 ozs.; tincture of ginger, 2 drs. Mix. One table-spoon to be taken four times a day.

Every fourth day the ointment should be intermitted for two days, to allow the skin to recover from the friction. Some practitioners paint the tumor with the tincture of iodine; but the benefit of *friction*, with the stimulating properties of the camphor, add so much to the benefit of the treatment, that we have no hesitation in recommending the ointment as the best means. Three months' steady employment of the above remedies will generally reduce the gland to an almost natural appearance.

GANGRENE.—The partial death of a part; the preliminary stage to mortification, or the absolute death of a part.

The CAUSES of gangrene are very numerous. It may arise from any excessive inflammatory action, from extreme cold, great bodily prostration, from severe blows, wounds, and accidents, and, indeed, from any cause that greatly depresses the vital powers; it also arises spontaneously in persons advanced in life, showing itself in the feet or toes, and, among the aged peasantry, is a very frequent cause of death.

SYMPTOMS.—Swelling, more or less extensive, loss of warmth in the part, a diminution of all pain; a bluish hue settles on the cuticle, which gradually deepens into a purplish brown; the discharge, if any, ceases, there is a loss of all sensation, the skin is raised into vesicles, or blisters, which break, and a thin, fetid, ichorous discharge escapes. From this time the cuticle undergoes another change, and becomes of a yellowish green; the pulse is quick, small, and feeble; a low, hectic fever supervenes, the patient rambles in his talk, delirium follows, and hiccup for an hour or two precedes death.

Gangrene never attacks a limb or part where the circulation is strong, but those places where it is most languid, and remote from vigorous action.

When it attacks the point of the great toe, it gradually advances over the whole member: the others next become involved, and then the foot, when extending up the limb, destroying all to the center as it spreads, till, reaching a spot where the circulation is strong, some lymph is thrown out from the healthy side in a complete circle around the part, cutting off all access, and drawing a line of demarkation between the living and the dead flesh. Were the limb now left alone, the gangrenous extremity would, after a short time, drop off as evenly as if it had been amputated.

TREATMENT.—This, to be at all effective, must begin before the vesicles rise, or sensation is lost in the part. The first efforts must be directed to raising the temperature of the skin, by a succession of warm, soft poultices, placing bottles of hot water in the bed, and by the employment of warm, diffusible stimulants to the system, so that, by rousing the circulation, the blood may be propelled with greater energy to the affected limb; a generous diet, with wine, bark, quinine and opium, are the agents by which this result is to be obtained.

The following mixture is an illustration of those general principles:

Take of camphor water, 6 ozs.; aromatic confection, 1 dr.; carbonate of ammonia, ½ dr.; mix, and add laudanum, 1 dr.; aromatic tincture, ½ oz.; compound tincture of bark, ½ oz.; spirits of sulphuric ether, 1 dr. Mix. Two table-spoons directly, and one every two or three hours, according to the urgency of the case.

The poultices are to be continued to the part till the natural warmth returns, and the skin begins to assume a healthier hue. Concurrent with these remedies, the patient should be fed every hour with beef tea, thickened with Dr. Ridge's patent food, or grated crumbs of bread, and, if necessary, an occasional quantity of wine and water.

For the gangrene that follows frost-bite, or exposure to cold, the very opposite of this treatment is to be adopted, and neither heat nor stimulants on any account employed. (See "Frost-Bite.")

There is a form of gangrene extremely malignant, which often rages in infirmaries, jails, and convict prisons, known as hospital gangrene, but on which it is needless to enter here.

FITS.—If a person falls in a fit, let him remain on the ground, provided *his face be pale;* for should it be fainting or temporary suspension of the heart's action, you may cause death by raising him upright, or by bleeding; but if the face be *red or dark colored*, raise him on his seat, throw cold water on his head immediately, and send for a surgeon, and get a vein opened, or fatal pressure on the brain may ensue.

GRAVEL.—A collection of sand or small particles of stone in the kidneys, ureters, or bladder. The urine often gives a deposit of a brick

dust appearance, *uric acid*. The symptoms are shivering, pain in the loins, generally felt more severly on one side, and passing downwards —towards the bladder, a frequent desire to make water, which is passed in small quantities, sometimes with blood, or for a time not passed at all, irritation about the neck of the bladder. As the irritating matter passes from the kidneys into the ureter, it produces pain so great as to cause faintings and convulsive fits. The transit of this matter may be made in a few hours, or it may last for several days. The following are good remedies:

Dissolve 3 drs. of prepared natron or carbonate of soda, in a qt. of cold soft water, and take half during the day. Continue as the case may require. The greatest martyrs have been relieved by this simple remedy: or, take 1 oz. of the spirits of sweet nitre, 2 drs. of liquid laudanum, and ½ oz. of the oil of juniper. Take a tea-spoon in a cup of linseed tea sweetened with honey. This has performed wonders. Or, take dandelion and marsh-mallow root, of each, 2 ozs., agrimony, a small handful, to 3 qts. of water; boil to 2 qts. DOSE.—A wine glass every three or four hours.

A gentle aperient may at times be given, and warm injections are very soothing. Take also the Diuretic Infusion. Flannels dipped in hot tincture of cayenne, and wrung out, or the Stimulating Liniment may be applied to the pained part. Hops simmered in vinegar, to which add 20 or 30 drops of laudanum. Drink at the same time a strong infusion of spearmint, and bathe the feet in warm water. The vapor bath now and then is very useful.

Dr. Beach advises the following: Acetate of potash, 2 drs.; honey, ½ oz.; spirits of turpentine, ½ dr.; carbonate of soda, ½ dr.; mint water or tea, 8 ozs. Mix. DOSE.—two table-spoons three times a day.

Eat largely of spinach; or, drink largely of warm water sweetened with honey; or, of pellitory of the wall tea so sweetened; or, infuse an ounce of wild parsley-seeds in a pint of white wine for twelve days. Drink a glass of it, fasting, three months. To prevent its return, breakfast for three months on agrimony tea. It entirely cured me twenty years ago, nor have I had a symptom of it since.—*Wesley.*

Red onion juice, and horse-mint tea, as much as the patient can take morning and night, is a fine remedy, and will dissolve stone.

Potash Drops.—Liquor of potash, 10 drops; infusion of linseed, 1 pt.; spirits of sweet nitre, ½ oz. Mix and take two table-spoons every three hours. A sure cure for gravel.

HEARTBURN.—This affection of the stomach, erroneously attributed to the heart, is a mere derangement of the digestive organs—an excess of acidity, in fact, in the stomach, either proceeding from too acid a state of the gastric juice, from some crude and indigestible substance in the stomach, from a piece of gristle, fragment of bone, or some irritating body, which, as we have shown under "Digestion," attempts to pass the pyloric orifice of the stomach, and, after vain appeals, is turned back till more completely digested, causing heat, pain, and inconvenience; or it is the result of worms in the bowels, irritating the whole alimentary tube. The symptoms of heartburn are too generally known to need description here; and it will suffice if we mention the best remedies for the different causes of the complaint.

For the heartburn to which *pregnant women* are so subject from the time of quickening to the end of the eighth month, the best remedy is lump magnesia, of which the patient may eat as much as she pleases; or a tea-spoon of prepared chalk, with 5 grs. of ginger, twice a day, in milk or cold water; or she may eat a few tea-spoons of whole rice, which will often afford more relief than any other remedy.

For heartburn the result of *acidity from eating pickles*, acid fruits, or acridity of the gastric juice, 20 grs. of carbonate of soda, or 15 of carbonate of potass, with 1 gr. of ginger, and 1 gr. of rhubarb, taken in a wine glass of water three times a day, or a tea-spoon of chalk or magnesia in a little peppermint water, will, in general, be found effectual in correcting the cause of annoyance.

When heartburn proceeds *from indigestible matter* in the stomach, either an emetic of 15 grs. of powdered ipecacuanha, or a compound colocynth pill, followed in three hours by ½ oz. of Epsom salts in a tumbler of water, is to be taken. Either plan can be adopted; the only advantage in the emetic is that its operation is more rapid, though more exhausting than the aperient plan.

For the heartburn resulting *from worms*, or irritation in the bowels, the reader must consult the articles "Worm," and "Tape-worm," which see.

For those affected with heartburn *after meals, especially dinner*, accompanied with sour eructations, a pill composed of 3 grs. of dried carbonate of soda, 1 of calumba, and 1 of ginger should be taken an hour before dinner, and 20 grs. of carbonate of ammonia, in a wine glass of infusion of camomile, half an hour afterwards, if necessary.

HYDROPHOBIA.—We give below a case that occurred at Flint, Michigan, which was successfully treated as follows:—

The all-absorbing topic of the day with us, is, whether the frightful disease known as hydrophobia can be cured or not. The case that manifested itself, and to which attention was called at the time in *The Tribune*, has created considerable excitement among us. In an article entitled "Hydrophobia," to be found in the *Citizen* of last week signed "Observer," and claiming to set forth medical authorities tending to show the incurability of the dreadful disease, he cites authorities, who, had "Observer" made a more minute inspection of their works, would have led him to a different opinion from that formed by hastily glancing over them.

The subject of so much discussion, Mr. Burt True, was bitten by a rabid dog last May. The dog had bitten several animals and was killed. Young True was bitten in the center of the inside of the right hand. Being in the country at the time, it was some 12 hours before he reached a surgeon, who cauterized the wound with nitrate of silver. The wound healed, and remained so, until between two and three weeks since, when it became irritable and broke out again. Soon the first marked symptoms of hydrophobia showed themselves, convulsions, "barking like a dog," frothing at the mouth, and making strenuous efforts to bite everything that came near. During these convulsions, the patient would seize the pillows from his bed in his teeth, and shake and rend them with all the seeming ferocity of an angry dog. An intense dread of water also exhibited itself, the sight of which threw him into the most terrible convulsions, at these times requiring the united strength of five men to keep him under subjection, in fact, every symptom of hydrophobia made itself conspicuous. The patient was attacked on Friday evening, January 19th. On Saturday night his physician, Dr. Axford, reached him, and at once was convinced of the terrible nature of the disease. Having had a case similar some seven or eight years since, where the patient recovered under his treatment, and has remained well ever since, after consulting the physician present, Dr. McCall, it was decided to place the patient upon the same treatment, which had been successful in the former case, which, for the aid it may be to others who suffer from this disease, we here give

as follows: The injection under the skin of large doses of morphine, and the administration of large doses of castor, which is a powerful anti-spasmodic. About one grain of the sulphate of morphine was injected under the skin once in four hours, and half a drachm of the powdered castor, mixed with syrup given internally. The effect was to produce sleep in about half an hour, which lasted about an hour and a half, when the convulsions returned again, and returned at intervals, of an hour to an hour and a half until nine o'clock Sunday morning when the last convulsion occurred, after which he suffered severely from obstinate vomiting until Monday at 10 o'clock when, that also ceased, leaving the patient comparatively easy, but very much prostrated. Since that time he has gradually improved, and now is to all appearances quite well. In addition to the above treatment, small quantities of chloroform were inhaled at times, and on Sunday morning the patient was wrapped in a woolen blanket wrung out of a warm solution of muriate of ammonia, 18 to 20 grains to the ounce. This was the treatment which checked this fearful malady and which Dr. Axford for the sake of humanity is anxious should be published to the world, and thoroughly tested.

Hydrophobia.—Immediately wash the bitten part with clear water; then take good tobacco (leaf tobacco, if possible; if not, strong manufactured cut tobacco) and make a suitable poultice for the place, changing it three or four times a day for a week. This effectually absorbs everything poisonous. A strong decoction of the roots of the white ash will cure the bite of a mad dog. At Ulina, in Friula, a man suffering under the agonizing tortures of hydrophobia, was cured by draughts of vinegar given him by mistake. A physician at Padua hearing of it, tried the same remedy upon a patient at the hospital, giving 1 lb. of vinegar in the morning, another at noon, and a third at sunset, and the man was speedily and perfectly cured.

Cure for Hydrophobia.—Dr. Buisson, of Lyons, claims to have discovered a remedy. In attending a female patient in the last stage of canine rabies, the doctor imprudently wiped his hands with a handkerchief impregnated with her saliva. He had a slight abrasion on the index finger of his left hand, and confident in his own curative system, the doctor merely washed the part with water. However, he was fully aware of the imprudence he had committed, and gives the following account of the matter afterwards: "Believing that the malady would not declare itself until the 40th day, and having numerous patients to visit, I put off from day to day the application of my remedy—that is to say, *vapor baths*. The ninth day, being in my cabinet, I felt all at once a pain in the throat, and a still greater one in the eyes. My body seemed so light that I felt as if I could jump to a prodigious height, or that, if I threw myself out of the window I could sustain myself in the air. My hair was so sensitive that I appeared able to count each separately without looking at it. Saliva kept continually forming in the mouth. Any movement of the air inflicted great pain on me, and I was obliged to avoid the sight of brilliant objects; I had a continual desire to run and bite, not human beings, but animals, and all that was near me. I drank with difficulty, and the sight of water distressed me more than the pain in the throat. I believe that, by shutting the eyes, any one suffering under hydrophobia can always drink. The fits came on every five minutes, and I then felt the pain start from the index finger and run up the nerves to the shoulder. In this state, thinking that my course was preservative and not curative, I took a vapor bath, not with the intention of

cure, but of suffocating myself. When the bath was at the heat of 35 Centigrade (93 3-5 Fahrenheit), all symptoms disappeared, as if by magic, and I have never felt anything more of them. I have attended more than 80 persons bitten by mad animals, and I have not lost a single case." When a person has been bitten by a mad dog he must for seven successive days take a vapor bath *a la* Russe, as it is called, of 57 to 63 degs. This is the preventive remedy. When the disease is declared, it only requires one vapor bath, rapidly increased to 37 Centigrade, then slowly to 63; the patient must confine himself to his chamber until the cure is complete. Dr. Buisson mentions other curious facts. A gentleman had been bitten by a rattlesnake, about eight leagues from home; wishing to die in the bosom of his family, he ran the greater part of the way home, and going to bed perspired profusely, and the wound healed as any simple cut. The bite of the tarantula is cured by the exercise of dancing, the free perspiration dissipating the virus. If a young child be vaccinated and then be made to take a vapor bath, the vaccine does not take.—*Galignani.*

When first bitten, or when the symptoms are manifest, give a dessert-spoon of the anti-spasmodic tincture and a mild injection. Then proceed to the vapor bath, as hot as the patient can bear it. After the bath give an emetic. The wound should be cupped, and caustic potash applied afterwards. Apply a yeast poultice, and keep up the discharge. Add a little powdered charcoal to the poultice. Repeat the vapor bath and the injection every ten or twelve hours. The diet should be light and unstimulating; the drink sudorific, or promoting perspiration. Drink often a decoction of skullcap, and at night take sulphur and cream-of-tartar.

Hydrophobia.—A dread of water, or canine madness. This fearful disease, though most frequently caused by the bite of a dog, may be induced by the saliva of any excited or vicious animal; the time the *virus* takes to act on the human system varying from four weeks to eighteen months.

SYMPTOMS.—The wound may have completely healed, when the patient suddenly experiences heat and pain in the part, and a tightness and constriction of the muscles of the face and neck, attended with an uneasy restlessness, and great irritability of temper, followed by thirst and difficulty of swallowing, particularly of liquids, and especially of water; the sight or sound of which throws him into violent convulsions, accompanied with intense horror and alarm; the contraction of the throat amounts to a sense of suffocating agony, while the body is racked with spasms that in two or three days, and in some cases a few hours, terminate in death.

TREATMENT.—Instantly tie a string above the wound, cut out the bitten part, or cauterize it freely with lunar caustic; tranquilize the system by a suppository of 10 grains of opium; give a mixture of opium, ammonia, camphor, and ether; apply bladders full of pounded ice to the spine, administer chloroform, and use the hot bath, with all the means and remedies advised under Bites, Stings, Rattlesnake, Neuralgia, and Locked Jaw, which see.

The Bite of a Mad Dog.—Mr. Hildebrand, Veterinary Surgeon, of Germany, says: "Bathe the bitten place in hot water. He has ascertained by experience that hot water has the effect of decomposing the virus, and if applied in time renders cauterization unnecessary; in that case all that is to be done after well bathing the part as stated, is to apply the solution of caustic potash to the wound with a brush and anoint it with antimony ointment. Apply ice to the spinal column,

this is *effectual;* or wash well with a strong decoction of tobacco, and then bind wetted tobacco on the wound, or take a pound of salt dissolved in a quart of water, squeeze, bathe and wash the wound with this liquid for one or two hours, then bind some salt upon it for ten or twelve hours; or, mix powdered liverwort, 4 drs.; black pepper, 2 drs.; divide this into four parts, and take one in warm milk for four mornings, fasting. Dr. Mead affirms he never knew this to fail.—*Wesley.*

ITCH.—It is a skin disease, infectious. Sometimes it is caused by poor living, unwholesome food, bad air, unventilated and dirty houses, dirty beds and clothes. The itch begins with small eruptions on the joints of the fingers, on the wrists, thighs, etc. They cause a most intolerable itching, the scratching of which only spreads the disease.

REMEDIES.—Sweet oil, 1 lb.; suet, 1 lb. Melt and macerate; then add powdered nitre, 3 ozs.; powdered alum, 3 ozs.; powdered sulphate of zinc, 3 ozs.; oil of anise-seed, oil of spike, and oil of bergamum, to perfume; or, mix 2 ozs. of lard with 1 oz. of sulphur-vivum, and a few drops of essence of lemons. Before going to bed rub this well into the affected parts. In the morning wash with soap and warm water; change the linen and clothes. Repeat the application, if necessary. Take at the same time flour of sulphur and cream-of-tartar, in milk, beer, or molasses.

Frequently take a warm bath. The greatest cures have been affected by it.

Wash the parts affected with strong rum.—Tried. Or, anoint them with black soap, but wash it off soon; or, steep a shirt half an hour in a quart of water mixed with half an ounce of powdered brimstone. Dry it slowly, and wear it five or six days. Sometimes it needs repeating.—Tried; or, mix powder of white hellebore with cream for three days. Anoint the joints for three mornings and evenings. It seldom fails; or, beat together the juice of two or three lemons, with the same quantity of oil of roses. Anoint the parts affected. It cures in two or three times using.

The following is said soon to effect a cure: Sulphur-vivum, Venice turpentine, 1 oz. each; lard, ½ oz. Melt the lard and turpentine; add the sulphur. Apply several times a day.

Or, wash the body well in warm water, and rub it with the following preparation: Lime, 2 ozs.; sulphur-vivum, 2 ozs. Mix in 1 qt. of water. Pour off, and use it when clear.

A decoction of white hellebore, with a little lavender water, has been recommended.

IRRITATING PLASTER.—Burgundy-pitch and bees-wax, ¼ lb. each; thick tar, ½ lb.; Venice turpentine, ¼ oz. Melt well and mix on a slow fire. When cold, mix with them powdered blood-root, poke-root, and a little cayenne. Spread on linen or soft leather. This plaster is counter-irritant, causes eruptions, and is a good curative for old sores and ulcers. It is highly recommended.

HICCOUGH.—Commonly called HICCUP. A spasmodic affection of the diaphragm, in which the muscles of respiration and of the larynx are more or less involved.

Hiccough may occur from eating too hastily after a lengthened fast, from drinking cold water, or from many causes affecting the stomach. As a symptom towards the end of fever, or in gangrene, it is always regarded as the near harbinger of death.

The treatment for hiccough, when a sudden ejaculation or a diversion of the patient's mind fails to check it, is to give 20 drops of sal volatile and 15 drops of ether in a wine glass of camphor water, or, in severe cases, 30 drops of laudanum.

HICCUP.—Swallow a mouthful of water, stopping the mouth and ears. Tried. Or, take anything that makes you sneeze; or, 3 drops of oil of cinnamon on a lump of sugar.—*Wesley.*

INDIGESTION.—It may be the effect or symptom of some disease, as nervous debility of the stomach, costiveness, obstructed perspiration, want of exercise, especially in the open air, deficiency or vitiation of the gastric juice, gluttony, alcoholic drinks, depressing passions; intense study, onanism, or self-abuse, etc. Tea, coffee, and tobacco are most fruitful causes of this disease.

TREATMENT.—Abandon, if possible, the causes which produce the effect. Give occasionally an emetic. If necessary, gentle aperients. Injections are often of great use. These methods may be repeated about once a week, till the disease abates. Emetics serve to remove morbid matter, impart new tone to the stomach, and give healthy action to the secretions. Dr. Beach recommends *lobelia* combined with *mandrake*, as the best emetic. The bowels are best regulated by always eating *brown bread;* for the bran gives a more natural stimulus to the liver and alimentary canal than any medicine that can be given.

The use of the dyspeptic pill tends very much to improve the tone of the stomach. The restorative wine bitters cannot be too much recommended. If indigestion arises from affections of the liver, treat for the same; especially take the liver pill with the aforesaid medicines. If, from a disordered stomach, there is acidity, etc., take the neutralizing mixture.

In fine, be choice in your diet; and eat the unsifted flour, by some called ground down, or brown bread—a better name would be—*ground altogether.* It is the grand *panacea* for indigestion. The dyspeptic must avoid or take little of fat meat, butter, cheese, pastry, strong coffee, green tea, and ardent spirits, which *harden the food* in course of digestion, and cause the feculent matter difficult and painful to be evacuated. Eat sparingly, take open air exercise as much as possible, use cold sponging.

Indigestion.—Prescriptions.—Dr. Babington's.—Infusion of Columba, 6 ozs.; carbonate of potass, 1 dr.; compound tincture of gentian, 2 drs. Mix. Three table-spoons to be taken every day at noon; *or,* take Gentian and Columba roots (bruised) and camomile flowers of each 1 oz., to 3 qts. of water; boil to three pints. DOSE.—Two or three tea-cups a day; or, take 1 oz. each of hops and carraway seeds; 24 cloves; ¼ oz. of senna, and 24 black peppers. Boil the whole in 3 pints of water till it is reduced to 2 pints. A wine glass of the infusion to be taken twice a day, at eleven and three o'clock.

Pain in the Stomach from Bad Digestion.—Take fasting, or in the fit, half a pint of camomile tea. Do this for 5 or 6 mornings; or, drink the juice of half a large lemon, or sweet orange, immediately after dinner every day.—*Dr. Mead;* or, from 10 to 20 drops of elixir of vitriol in sage tea, twice or thrice a day; or, in the fit a glass of vinegar; or, take 2 or 3 tea-spoons of stomachic tincture, in a glass of water, thrice a day.

The tincture is made thus: Gentian root, sliced, 1 oz.; orange peel, dried, ½ oz; cochineal, 15 grs.; proof brandy, 1 pt; in three or four days it is fit for use. This is useful in all disorders that arise from a relaxed stomach.—*Wesley.*

LOCKED JAW—Tetanus.—A disease in which the muscles of the body are in a state of rigidity, with occasional spasms, and excruciating pain. The cause of this disease is injury done to the extremities of the nerves, punctured or lacerated wounds of the hands or feet, surgical operations, or the use of narcotic poisons.

The muscles of the lower jaw become hard and contracted, the mouth is closed, and the patient cannot open it; hence the name *locked jaw*. The rigidity extends to the tongue and throat, causing great difficulty in swallowing. Sometimes nearly the whole body is affected with the spasms. There is constriction of the breast, severe spasmodic pain in the stomach, shooting to the spine; the face is hideously distorted, and the breathing very laborious. It is a dangerous disease, and requires prompt skillful attention.

TREATMENT.—When the disease is caused by wounds, they should be cleaned, and the inflammation subdued as soon as possible. If possible foment or steam over with bitter herbs, and steep in hot soap water several times a day. Then apply a poultice of slippery elm mixed with lye or milk, and put on warm. Promote perspiration by means of the vapor bath, or place hot bricks wrapped in vinegar cloths to the feet and sides. Repeat if needful. Pour into the mouth a tea-spoon of the anti-spasmodic tincture every ten minutes until the muscles of the jaws relax to enable the patient to swallow. Give a tea made of balm and catnip. These means have often been effectual. Add more cayenne to the anti-spasmodic tincture if the rigidity does not give way. An aperient or injection will also be necessary. The latter may embrace a strong decoction of lobelia, milk, molasses, sweet oil, and a little anti-spasmodic tincture.

Locked Jaw.—*Tetanus, or rigid spasm*, and sometimes called, from one of the symptoms, that of clashing the teeth, *trismus*.

Though *trismus*, or locked jaw, is one of the features of that frightful convulsive disease known as tetanus (where the body is sometimes bent backwards, or to either side, till it assumes the shape of a drawn bow, the bones occasionally broken under the contractile force of the muscles, and the suffering of the patient intense), it frequently happens that the local symptoms affecting the head and neck, resulting in locked jaw, take place without the general constitutional convulsion. It is to this form, or *trismus*, that we shall, for the present, confine our remarks.

The causes inducing this generally fatal malady are often some local injury, such as rusty nails running into the hands or feet, bites, lacerations of the nerves from foul instruments, wounds received in dissection, and in war from the long exposure of the wounded to wet and cold.

SYMPTOMS.—These commence with pain along the course of some nerve or muscle, producing hardness and rigidity of the muscles of the chest, neck, and throat, accompanied with great difficulty of swallowing. As the disease advances, the pain and rigidity involves the chest, extends to the back and shoulders; the muscles of the face are soon afterwards thrown into violent action, and the jaws clash on whatever is placed in the mouth, and soon after become so completely closed that no artificial means can separate them; the eyes protrude, the skin of the face becomes pale and corrugated, the nostrils stand stiffly out, the angles of the mouth are puckered and drawn forcibly in, giving a ghastly and half-sardonic grin to the countenance; the breathing is short and labored, and the patient endures terrible suffering. During all the time, however severely his body may be racked by pain, the patient's faculties remain clear and undisturbed.

TREATMENT.—To reduce the spasm as quickly as possible is the first and most important consideration. To effect this, drachm doses of laudanum should be poured down the throat while the jaws are apart; the body placed up to the throat in a hot bath; an injection of

warm gruel, tincture of assafœtida, and turpentine thrown in quantity up the bowels; and, finally, the whole spinal column rubbed with a strong embrocation of oil of amber, turpentine, ammonia, and camphorated oil; long strips of brown paper are then to be laid along the wet spine, and a hot flat iron passed a few times hastily over the paper, so as to drive the embrocation into the nervous centre by the heat of the iron.

If the jaws have become early locked, one or two of the front teeth must be drawn out by the claw of the tooth-key, the tube of the stomach-pump passed down the gullet, and the laudanum—or laudanum, gruel, and ammonia—pumped into the stomach. Should there be no convenience for a hot bath, one or more blankets can be soaked in very hot water, hastily wrung out, and the patient, previously stripped, instantly enveloped in both, laid in bed, and covered over with extra clothes.

Chloroform promises to be the best remedy to reduce the spasms and relieve the patient of his suffering, and should be properly administered by a medical man as soon as possible. Another remedy much recommended for this disease is Indian hemp. See "Tetanus."

LUNGS.—Inflammation of.—Sometimes the disease effects one lobe of the lungs, and sometimes both. Males are more subject to it than females. Frequent colds, wet feet, intemperance, over exertion and natural debility of the lungs induces this complaint.

It generally begins with cold shiverings, followed by hot fever dull pains in the chest or side, cough, and very laborious breathing the pulse is full and quick, the bowels are often constipated, the urine deficient, the skin dry and burning, the expectoration scanty, but it gradually increasing, and sometimes it contains blood. It is a very dangerous disease; as it may proceed with such violence as to cause an effusion of blood or lymph into the texture of the lungs, as to cause suffocation.

TREATMENT.—Avoid bleeding by the lancet. Dr. Beach says "All the blood in the body must pass through the lungs, after reaching the heart, before it can be again circulated; but in this disease they are unable to perform this double duty from the great amount which has been distributed to them. As these organs have become unduly loaded; impeding respiration, etc., the obvious indication is—instead of abstracting, or rather attempting it—to return it to its original channels, and thus remove the burden under which they labor. Bleeding will not affect this; but, on the contrary, it will so weaken or paralyze the heart, which is laboring to accomplish this object, that prostration, and often death, are the consequences."

Give sudorific medicines to produce free and copious perspiration; and for this purpose give a *vapor bath*, using an infusion of bitter herbs, as hops, camomile flowers, pennyroyal, tansy, catnip; add vinegar; cover, and infuse two or three hours. It should be repeated. If the patient cannot bear the fatigue of the bath, place hot bricks, or bottles, to the sides and feet. Give also sudorific powders, which see, until the breathing is relieved, and free perspiration induced. As soon as the patient is relieved, the bowels must be regulated by giving a gentle purge, and also an emetic; repeat, if necessary; continue the sudorific powders; as these means are calculated to unload the chest, and return the blood to its former state. Injections, where the feces are hard, and the bowels lethargic, are of great importance, and should be given occasionally. If the cough is troublesome, give some of the cough remedies, or the expectorant sprup, or cough pills. The inhala-

on of the steam of bitter herbs while infusing in boiling water serves decrease the tightness of the lungs, and to promote expectoration. his should be repeated several times a day.

Should there be much irritation, or spasmodic affection, use the ulmonary syrup. Bathe the feet occasionally in warm water. Mulaginous drinks should be taken, as linseed, with a little lemon juice. n infusion of horehound, boneset, catnip, with slippery elm, sweetned with the finest sugar, or sugar-candy, is a very proper drink. reat attention must be paid to diet; it should be simple and easy of igestion; as arrow-root, sago, beef-tea, without or with little salt. hen the inflammation is subdued, and the tongue is clean, give tonic, or the composition powder.

NAILS.—Growing into the Flesh.—Cut a notch in the middle of ne nail every time the nail is pared. The disposition to close the otch draws the nail up from the sides.

Nails, To Whiten.—Wash them with turpentine, then with soap nd water, next with a solution of oxalic acid, and lastly, wash the ands well in warm water.

NOISE IN THE EARS.—This is a symptom either of a distended omach or a condition of congestion of the vessels of the neck and ead, and in all cases should be attended to at once, especially in thickecked and plethoric persons. When the stomach is the cause of the rumming, roaring and other noises heard, the organ should be elieved by an emetic or purgative; and when it arises from fullness of ne vessels, either local or general bleeding must be adopted to reduce ne circulation, as explained under Apoplexy and Congestion.

Noise in the Ears.—Drop in juice of onions.

PAIN IN THE BACK.—Steep root of water-fern in water, till the ater becomes thick and clammy; then rub the parts therewith morng and evening; or, apply a plaster, and take, daily, balsam of copaiba; , apply garlic and hog's lard to the feet.—*Wesley.*

PAINS IN THE HEAD AND FACE.—Take half a pint of rose-ater, two tea-spoons of white vinegar, and form a lotion. Apply it the affected part three times a day. It requires fresh linen and otion each application; this will in two or three days, gradually take ne pain away.

PAINS IN THE JOINTS.—Make a poultice of the young leaves f Rag-wort, and put on as hot as can be borne.

PAIN IN THE SIDE.—At bed-time apply a fresh cabbage leaf, armed by the fire, and bind it tightly round the body for twelve ours, or more. The first application gives relief; if not, apply a econd leaf.

PIMPLES.—They generally arise from indigestion, or some inernal derangement; therefore the disease should be attacked at the oot. Take the following: Tincture of cardamons, 1 dr.; ipecacuanha wine, and a tea-spoon of flour of sulphur, with a glass of sherry or inger wine. Take this on going to bed; repeat it every second or hird night, and keep the bowels gently open.

It is good to wash the face with warm water. Rub a sponge over old Windsor soap, and dip in warm water and apply. Glycerine soap is very useful. A weak solution of sugar of lead, or sulphate of zinc, sometimes is effectual.

JAUNDICE.—From the French word, *jaune, yellow.* This disease is known by the yellow color of the eyes, skin, and urine. The stools are either white or grey, caused by the absence of bile; and there is often pain in the right side, arising from the state of the liver; also,

mental depression, constipation, headache, drowsiness, nausea, vomiting. Jaundice is caused by obstructed secretion, or by a reabsorption of the bile. Hence it appears that the yellowness of the skin is produced by bile taken up into the circulation, the effect of those causes. When large gall-stones get into the gall-ducts, they cause jaundice and very severe pain. When they pass away a cure soon takes place. Should the color of the skin become very dark-colored, it is an indication of some incurable organic disease of the liver.

TREATMENT.—Those means must be used which will promote the secretions, and the regular flow of bile. Give an aperient composed of senna, camomile flowers, ginger, and powdered jalap, of each 1 oz. Mix. Take half a tea-spoon in a little warm tea. After it has operated, give the common Emetic. Keep the bowels always gently open; and give the Liver Pill.

Dr. Beach says, "In obstinate cases, the barberry root, cut up, and infused in cider, may be taken, and the purgative repeated, and the emetic also, if necessary. Common soot (he must mean wood-soot, peculiar to this country) scraped from the chimney, enclosed in linen, and boiled in water, makes a liquid which will be found very efficacious; it may be taken alternately with the other medicine."

If the pain on the right side is severe, use fomentations of the decoction of hops. Use the vapor bath, and take some of the Sudorific Powder; for such means tend to relax the biliary duct, that the gall-stones may pass away. Let the diet be light and nourishing. The following decoction is useful: Burdock root, 1 oz.; agrimony, 1 oz.: water, 2 qts.; boil down to 3 pts. DOSE.—A wine glass two or three times a day.

Dr. A. Hunter recommends eggs. He states that the *yolk* of an egg is the most salutary of all animal substances. In jaundice no food is equal to it. "When the gall is too weak, or by accidental means, does not flow sufficiently into the duodenum, our food which consists of watery and oily parts, cannot unite so as to become chyle. The yolk of an egg unites the water and oil into a uniform substance, thereby supplying the deficiency of natural bile."

Or, take a small pill of castile soap every morning for eight or ten days.—Tried.—Or, beat the white of an egg thin; take it morning and evening in a glass of water. Or, half a pint of strong decoction of nettles, or of burdock leaves morning and evening. Or, boil 3 ounces of burdock root, in two quarts of water to 3 pints. Drink a tea-cup of this every morning.—*Wesley.*

The plant Bitter-sweet has been very useful in this disease. See Robinson's Herbal, for that plant, also Jaundice.

Jaundice.—One penny-worth of allspice, ditto of flour of brimstone, ditto of turmeric; these to be well pounded together, and afterwards to be mixed with half a pound of molasses. Two table-spoons to be taken every day.

LIVER COMPLAIANT.—Take 4 lbs. of dandelion roots, bruise and press out the juice; run it through a muslin bag, and bottle it. Of this take two table-spoons three or four times a day.

Drink occasionally of the following decoction: take the bruised roots above mentioned, a small handful of agrimony, and 2 ozs. of burdock root, to 3 qts. of water—boil to 2 qts. Of this take four half-pints a day.

Liver—Inflammation of.—This disease generally begins with a sense of weight, or pain in the right side, about the false ribs. The pain often extends to the top of the right shoulder. The stomach and

bowels are disordered; the appetite is impaired; the patient has sickness, often vomits bilious matter; there is a dry cough, oppressive breathing, a difficulty of lying on the right side; costiveness, emaciation, debility, hard and frequent pulse, and a sallow complexion.

The office of the liver is to secrete the bile, the origin of which is this: the dark venous blood, passing through the liver on its way back to the heart, is there divested of its noxious matter, consisting largely of carbon, and so made fit for re-entering into the arterial circulation. A portion of the matter so separated from the blood is the *bile*, which is discharged into the duodenum, and there mixes with the digested food, and performs the important office of fitting it for absorption into the system. The bile thus mixed with the elements of nutrition is also absorbed, and it is probable that it is adapted and designed to support the processes of respiratory combustion. It is the bile that gives the color to the feces, which indicate a healthy flow of the bile when they are the color of rhubarb. When, owing to some functional derangement, the bile mixes with the blood in its circulation, it is indicated by yellowness of complexion, in jaundice, and by the symptoms previously described.

The healthy flow of bile is interrupted frequently by high living, obstructed perspiration, the drinking of wines, malt liquors, and especially ardent spirits, and dram drinking.

Dr. Graham judiciously observes: "The term *liver complaint* is now far too indiscriminately used. It is properly applied to designate disease in the texture of the liver; but the majority of the maladies called by that name, are in reality severe disorders of the digestive canal, that is, chronic affection of the stomach and intestines."

The symptoms which indicate affections of the liver, are increasing debility and emaciation, the pain and uneasiness at the right side extending to the shoulder, loss of appetite, full and hard pulse, etc. But in digestive disease, the loss of flesh is not so great, the breathing is not so laborious, and the pain is more in the region of the stomach.

TREATMENT.—The first thing to do is to lessen the undue determination of the blood to the part by equalizing its circulation, and restoring the proper secretions. This will be effected by moderating the diet, living low, avoiding all stimulants, condiments, etc. Give the vapor bath, and the sudorific powders, to promote copious perspiration. Take gentle aperients; as, senna, manna, cream-of-tartar, and fennel seed. The bowels should be moved at least once a day. All *violent* purgatives are to be avoided; they must be gentle. In weak constitutions, a decoction of tamarinds, sweetened with manna, often answers the purpose; but if not sufficiently strong add a little senna. Mild laxative injections occasionally are of great service.

If there should be vomiting, mix supercarbonate of potash, 1 dr., with ½ pt. of peppermint water; and take a table-spoon whenever the vomiting returns. If the pain is severe, foment the side with a hot decoction of bitter herbs, as hops, etc.; or the Anodyne Fomentation; or apply the Stimulating Liniment. A poultice made of bran, or oatmeal, with a little mustard and cayenne pepper, and mixed with vinegar, and formed into a plaster or poultice, will be found to be invaluable. A mustard plaster is also applicable, and answers better than a blister plaster, though it may be applied if the pain be obstinate; give also 10 grs. of the Diaphoretic Powders, for they allay pain, and promote sleep. If the sickness and irritation of the stomach continue, give an emetic, and repeat every day, if necessary.

Medicines which promote the secretions of the urine have a very good effect here. (See "Diuretic Drops," etc.) Or, take ½ dr. of purified nitre; or a tea-spoon of sweet spirits of nitre in gruel or balm tea three or four times a day. Continue this treatment till the symptoms are subdued.

Chronic disease of the liver arises chiefly from the induration and torpidity of the liver; therefore, the object must be to correct the disordered state of the stomach and bowels, and to give tone and activity to the liver. This may be effected by the vapor bath, emetics, and sponging the body with the Stimulating Liniment; by the use of the Liver Pill, or Dyspeptic Pill, etc., which see. Apply to the painful part the Irritating Plaster.

Liver Pill.—1 oz. each of powdered blood-root, powdered mandrake, and extract of dandelion, to which add 2 drs. of powdered senna. Add a few drops of oil of spearmint, or peppermint, and form into pills. Take two or three night and morning. This pill is a *sovereign remedy* for inflammation of the liver, and for jaundice.

NETTLE RASH.—So called from its resemblance to that produced by the stinging of nettles. The skin is raised, and whitish on the top; it is attended with itching and tingling. It is a very mild disease, and seldom requires much medicine. The following remedies have been recommended:

An equal proportion of oil, vinegar, and spirit of wine, applied to the skin, will afford temporary relief for the itching. Take, at the same time, 6 grs. of magnesia in a glass of lime-water three times a day; or rub the part well with parsley.

But it is best to give the vapor bath of bitter decoction, and apply to the part the stimulating liniment, and an aperient; or apply tincture of lobelia and tincture of myrrh, mixed, to the skin. Sponge the body every morning in salt and water. Weak camphorated spirit is a good rubefacient in this disease. An emetic sometimes effectually dislodges the disease.

NEURALGIA or TIC DOLOUREUX.—Put half a drachm of sal ammonia in an ounce of camphor water. Take a tea-spoon at a dose, and repeat the dose several times at intervals of five minutes, if the pain be not relieved at once. This medicine has generally cured.

Or, take extract of valerian, 2 ozs.; henbane, 1½ ozs.; aconite, ½ oz. Mix well, and with oil of lavender, form into pills. Take one or two every four hours. It acts like a charm on neuralgia, and all nervous disorders; or, apply bruised horse-raddish to the part affected. Chloroform has recently been applied to the parts affected with neuralgia. Indeed it is made a patent medicine for "Tic." A piece of lint should be soaked in it, and applied; cover it with flannel.

NEUTRALIZING MIXTURE.—Powdered rhubarb, 3 scrs.; saleratus, or crude bicarbonate of potash, 3 scrs.; powdered peppermint plant, 3 scrs; boiling water, ½ pt.; decoction of anise-seed, ½ pt. Mix. Strain, sweeten with sugar, and add three table-spoons of brandy. Take one or two table-spoons as oft as the symptoms require it. For children a less dose.

Very valuable in cholera, bowel complaints of children, laxity of the bowels, flux, etc. An infallible remedy.

NIGHTMARE.—The complaint always happens during disturbed sleep. It comes on with a sense of great weight on the chest, and a dreaming of something very frightful and horrible, bad persons, spectres of various shapes wild beasts infuriated animals in pursuit, and which the patient cannot escape, though apparently he makes

nake the greatest efforts to escape; he attempts to cry out, but
ly in vain. The sensation is very distressing and painful.
ies the uneasiness continues after he awakes, so as to prevent
ing or moving in bed for some time.
ilious, and nervous people, are most subject to it; it is also
by heavy suppers. The disease is probably produced by indi-
and by compression of the lungs, and the consequent obstruc-
the free return of blood from the brain. The disease is
ous, and, doubtless, many have died under the attack; and
ath has been attributed to apoplexy.
e remedy is to avoid all exciting causes, as too much abstruse
g, late and heavy suppers, food difficult of digestion, cold feet,
ness, and flatulence. To prevent the nightmare, mix together 10
carbonate of soda; 8 drs. of compound tincture of cardamoms;
simple syrup, and 1 oz. of peppermint water. Repeat for sev-
hts in succession; afterwards take a few drops of the Aperient
e, or the Aperient Tonic Mixture. Also a little cayenne in
tea will prevent an attack. Those who are habitually subject
mare should not sleep in a room alone, but have some person
m, to be awakened by their moans, groans, etc.
Beach says: "It is not improbable that some of those persons
ve been found dead in their beds were destroyed by it."
RVES.—These are contractile bundles of white cords, whose
e connected to the brain, and spinal marrow, and thence extend-
r the whole body, to receive impressions from external objects.
re in the eyes, at the root of the teeth, about the ears, in fact,
here in the body, from the crown of the head to the sole of the
Two pairs of nerves proceed out of each side of the spine, and
ramifying to every part of the body. They are so abundant,
cannot touch any part of the skin with the point of a needle
coming in contact with a nerve, and a blood vessel. The
ympathetic nerve is the most important of all. It com-
tes with all the spinal nerves, and several of those of the brain.
lerve Powder.—Take 1 oz. each of scullcap, and valerian; cat-
z.; cayenne, 1 dr.; coriander seeds, ½ oz. Pulverize, and mix.
tea-spoon in a cup of boiling water, leaving room for milk and
Repeat according to the symptoms. This powder tranquilizes
t irritable nerves without debilitating and deadening their sensi-
It greatly strengthens the nerves.
vousness.—Sulphate of quinine, 1 dr.; dissolve it in 6 ozs. of
rated jalap; add of the volatile tincture of valerian, 3 drs.;
of columba, ½ oz. Mix. When the nerves are irritable, at-
with indigestion, flatulence, and occasional headache, this is
rviceable. Three table-spoons to be taken three times a day.
vous Disorders—Rev. John Wesley's Directions.—When the
perform the office too languidly *a good air* is the first requisite.
lient should rise early, and, as soon as the dew is off the ground,
let his breakfast be mother of thyme tea, gathered in June,
alf as much as we do of common tea. Or, the common garden
if the former cannot be procured. When the nerves are too
e, let the person breathe a proper air. Let him eat fresh veal,
s, or mutton. Vegetables should be eaten sparingly; the most
is the French bean, and the best root is the turnip. Wine
be avoided; and all sauces. Sometimes he may breakfast upon
er of an ounce of valerian root infused in hot water, to which
add both cream and sugar. Tea is not proper. When the

person finds an uncommon oppression, let him take a large tea-spoon of the tincture of valerian root.

This tincture should be made thus: Cut in pieces six ounces of wild valerian root, gathered in June, and fresh dried. Bruise it in a mortar, that the pieces may be split, but it should not be beat into powder; put this into a quart of strong sherry wine; cork the bottle and let it stand three weeks, shaking it every day; then press it out, and filter through paper.

But there is no remedy for nervous disorders of every kind, comparable to the proper and constant use of the electrical machine.

Nerve Drops.—Mix 8 drops of spirits of hartshorn with 4 drops of the oil of lavender, and take in a wine glass of water.

Nervous Mixture.—Liquid carbonate of ammonia, ½ dr.; compound tincture of cardamom, ½ oz.; oil of lavender, 8 drops; mint water, 3 ozs.; mix, and take in two or three doses. It is invaluable.

Nervous Pill.—Assafœtida, extract of hops, carbonate of ammonia of each, 1 oz.; extract of valerian, 20 grs. Dissolve the first two ingredients over the fire, then take off, and add the others; mix well, and with a few drops of the oil of lavender, and a little powdered licorice, form into pills. Dose.—One or two once or twice a day.—*Valuable* in all nervous and hysterical disorders.

Nervous Tincture.—Compound tincture of bark, 2 ozs.; ammoniated tincture of valerian, 1½ ozs; compound tincture of aloes, ½ oz. Mix. Good for general weakness, low spirits, and nervous irritability. Two tea-spoons twice a day.

NETTLE.—The nettles make a good rubefacient for limbs cold, benumbed, and torpid. Paralytic parts being beaten and stung with this herb, have regained their vigor, and limbs which have lost their use by rheumatism. The juice is astringent, and is good in gravelly complaints, internal hemorrhage, and spitting of blood.

A decocotion is excellent in scurvy. The decoction is valuable in cases of bloody urine. The seeds and flowers of the nettle are as good a tonic as Peruvian bark in fevers and ague. About *a drachm* given in wine. A decoction of the root is most valuable in diarrhea and dysentery, or laxity of the bowels and bloody flux. It should be sweetened. Cancers, it has been said, have yielded to the juice of nettles, as much as four ounces having been taken in a day.—See *Robinson's Herbal.*

TIC-DOULOUREUX, or a painful spasm; a name given by French physicians to an aggravated condition of neuralgia, affecting the nerves of the whole or one-half of the face or head. The peculiarity of this disease is that it commences without a moment's warning, seizing on the nerves of the face with the most violent pain, and continuing for an indefinite time to torture the patient with the most excruciating agony, frequently terminating as suddenly as it came on, though sometimes gradually subsiding in its intensity. Branches of the 5th pair, or trifacial nerves, are the parts generally attacked, especially the *supra* and *infra orbital,* and the *maxillary* branch, and a line drawn from the centre of the eyebrow in a straight line to the lower jaw will cover the three points where the pain is usually felt most agonizing; a filament from each branch escaping on to the face by three small apertures,—one above the brow, the other under the orbit, and the third midway between the chin and the angle of the jaw. This most distressing disease generally attacks those whose digestive organs are faulty, selecting rather the weakly than the robust, and those whose constitutions have been much deranged by a long residence in a warm

mmate, and more particularly those who have suffered much from wounds and injuries to the head; in fact, whatever may have been the remote inducement, an unhealthy state of the stomach and bowels is in all cases the immediate cause of an attack of this disease; however much the nervous system may be or has been irritated, it is to some derangement of the bowels, or to the presence of some crudity in the stomach, that this dreaded enemy is to be attributed, which, as we have stated, may attack the patient without a premonitory symptom, may rack him for hours with a rigid spasm of the nerves and a convulsive twitching of the facial muscles, or it may only endure for a few minutes and not recur for weeks or months, or it may revisit him at every change of the wind to the east, or it may become periodical, and recur at regular intervals, like an ague.

THE TREATMENT.—In all cases where the pain can be endured for some time, to allow of the action of aperient medicine, the treatment should commence by giving one or two of the compound assafœtida pills, and if there is any acidity in the stomach, by ordering a draught composed of 50 grs. of bicarbonate of potass, or carbonate of soda, dissolved in a wine glass of camphor water, with 1 dr. of the aromatic tincture; this draught to be repeated every six or eight hours if necessary. To promote digestion, when a want of tone in the stomach is regarded as an exciting cause, a tea-spoon of Gregory's powder, with 5 grains of colombo powder, should be taken in a little peppermint water an hour before each meal; at the same time, care should be taken to keep the skin clean and healthy by a warm bath, and the free use of the flesh-brush. When, as is sometimes the case, the state of the mouth and gums and the condition of the teeth is an exciting cause, the evil should be at once remedied; the teeth, if necessary, scaled, the decayed and irritating stumps removed, and a wash of borax and water, with a tincture of myrrh, freely used with the tooth-brush to clean the teeth and gums. Such are the means and precautions which should be employed in the intervals of attack, or when the pain will allow of their being adopted, to prepare the body to resist a renewed attack of the disease.

When, however, the paroxysm is on, and the patient almost distracted with the severity of his suffering, and there is no time to wait for the action of the aperient medicine, relief to the symptoms must be found first, and the pain abated before the doctor troubles himself about the disease.

When the pain comes on in paroxysms at regular recurring intervals, the remedies, as in intermittent fever, can only be given with a hope of benefit an hour or two *before* the expected attack. In such cases the best means to employ are the following, taking the draught two hours before the paroxysm, and the pills as directed:

Take of sulphate of quinine, 10 grs.; infusion of roses, 12 drs.; tincture of ginger. ½ dr. Mix, and make a draught, to be taken, if possible, two hours before the attack.

Take of sulphate of quinine, 6 grs.; tartar emetic, ½ gr.; powdered opium, 2 grs.; extract of poppy, enough to make a mass, which divide into three pills, one pill to be taken every half hour after the draught.

As a general rule quinine should not be given till the bowels have been opened; should they not have been so within twelve hours, an aperient pill and draught must be given soon after the above medicines, to prevent their acting hurtfully on the head.

In thin, delicate, or inflammatory subjects, instead of a draught and pills the following powders may be beneficially employed:

Take of carbonate of iron, 1 dr.; sulphate of quinine, 15 grs.; aromatic powder, 1 dr. Mix, and divide into four powders: one to be given every half hour before the expected time of attack.

To afford relief during the paroxysm of pain, and where no medicine has been previously given, a suppository of 10 grains of soft opium should be immediately passed up the rectum, and the following draught taken as soon after as possible, followed every quarter of an hour, till relief is obtained, by a claret glass of port wine:

Take of sulphate of quinine, 6 grs.; brandy, ½ oz.; laudanum, 45 drops; sal-volatile, spirits, 1 dr.; sulphuric ether, 25 drops; water, 1 oz. Mix: to be drank instantly. An emetic, in many instances, will arrest the acute agony of the pain, and where no cause prevents its use, should be employed; in such cases, one-half the doses given in these last prescriptions will be found sufficient to break the force of the paroxysm.

The discovery of chloroform has placed in the physician's hand a powerful agent for good in such cases; but as very great danger attends its indiscriminate use, and as it should never be given but under the eye of a medical man, we have purposely refrained from prescribing it. (See "Neuralgia.")

PILES.—An enlargement of the veins at the lower termination of the intestines, frequently causing great pain, bleeding, and difficult evacuation. The tumors are seated sometimes externally, and sometimes within the verge of the anus, for the most part attended with a discharge of blood; these are called *bleeding piles*. When no blood is discharged, they are termed *blind piles;* and, when the discharge is only serum, *white piles*.

It is most frequently caused by costiveness, by pregnancy, and a sedentary life, by strong purgatives, and by dram-drinking. The piles are sometimes the effect of relaxation and debility, and not unfrequently result from an inflammatory action in the rectum, and a diminished secretion of mucus from its inner membrane.

TREATMENT.—When piles are caused by constipation, and a debilitated state of the bowels, it is needful to open them, and keep them so by gentle aperients. Medicines which act moderately upon the bowels, are calculated to remove that morbid state of the liver and stomach which often causes the complaint. The patient may take sulphur, cream-of-tartar, confection of senna, and the lenitive electuary; but all strong purgatives must be avoided.

Mix sulphur, ½ oz.; confection of senna, 2 ozs.; saltpetre, 3 drs.; and as much syrup of orange as will give the mixture a proper consistence. About the size of a nutmeg must be taken two or three times a day.

It is very soothing and healing to steam the parts with a sitz bath made of a strong decoction of bitter herbs; as hops, catnip, tansy, pennyroyal, and camomile flowers. Pour upon them boiling water and vinegar. Infuse some time; boil again, and let the steam approach the parts.

A cold water cloth has been found of great service. Dip a cloth into cold water; let the cloth be four-fold; apply it close, and press it to with a dry cloth; as it warms, re-dip into cold water; do this several times; then convey into the anus some pure tallow or lard, or the pile ointment, described at the end of this article. A slippery elm poultice, made with milk and water to a proper consistence, may also be

applied. The slippery elm is both cooling and healing. Ten drops of laudanum may be added to the poultice.

When there is great constipation, an emolient injection is indicated. Take ½ pt. of water, ½ a dessert-spoon of salt, and 1 oz. of castor oil. Retain it as long as possible. The following injection is recommended by Dr. Simmons:

Witch hazel leaves, ½ oz.; cranesbill, ½ oz.; meadow fern burrs, 1 oz.; slippery elm, 2 drs.; mix the powders well together, and pour upon them 1½ pts. of boiling water. Infuse for 4 hours, and strain it. In the morning use ½ pt. for an injection, and at night not quite so much, and retain it, if possible, all night. Repeat as often as necessary.

The marshmallow ointment is also very useful. For blind piles the tincture of lobelia is very good; so also is brandy, a little diluted, applied frequently.

It is a good plan to cleanse the anus night and morning with soft soap and water; then using tallow or the pilewort ointment, or any of the ointments for the piles. It is good to wash the anus after every evacuation. Generally speaking, the application of cold water is more effectual than warm water for fomenting, etc.; but this must be decided by the patient, as warm water in some states of the piles is very soothing.

To effect a cure, the bowels must be kept regularly open. Take Epsom salts, ½ oz.; infusion of senna, 6 drs.; tincture of senna, 3 drs.; decoction of bark, 1 oz., spearmint water, 1 oz.; water, 4 ozs.; best manna, 3 drs. Mix, and take from 3 to 6 table-spoons every morning, or every other day. The diet should be chiefly vegetable till the disease is gone. Or, take a gentle aperient also every other night, and on the alternate night the tonic pill (which see).

When the constitution has become habituated to the disease, stimulants, as pepper and ginger, taken with the aliment, often afford considerable relief. Elecampene root, 2 ozs.; sweet fennel-seed powder, 3 ozs.; black pepper powder, 1 oz.; milk of sulphur, 1 oz.; purified honey, 2 ozs.; brown sugar, and molasses, of each 1¼ ozs. Mix the first four ingredients; melt the honey, sugar, and molasses, and then mix all together. About the size of a nutmeg to be taken two or three times a day.

The decoction of oak bark is said to be a good remedy for piles.

"Aloes," says Dr Buchan, "which form a principal part of the advertised pills, are frequently the cause of piles. Therefore persons subject to them should avoid all aloetic purges. An habitual costiveness is much more effectually and safely removed by a spoonful of castor oil taken occasionally in an evening." A weak solution of sugar of lead with a little laudanum is useful when the piles are very painful. Powdered galls and hog's lard form a good ointment. Henbane leaves powdered and mixed with slippery elm and sweet oil, and six drops of laudanum, form a good application. The pain is often removed by an emetic, or by taking twice a day 20 or 30 drops of balsam of copaiba on loaf sugar, or in a little peppermint water. The vapor of boiling water over leeks is useful.

Piles, Bleeding.—Lightly boil the juice of nettles with a little sugar; take 2 ozs. It seldom needs repeating.—*Wesley.*

Piles, To Cure.—Apply warm molasses. Or, a tobacco-leaf steeped in water 24 hours. Or, a poultice of boiled brook-lime; it seldom fails. Or, a bruised onion, skinned, or roasted in ashes; it perfectly cures the dry piles. Or, fumigate with vinegar, wherein red

hot flints have been quenched; this softens even schirrous tumors.—*Wesley.*

Inward Piles.—Swallow a pill of pitch, fasting. One pill usually cures the bleeding piles. Or, eat a large leek, boiled. Or, take twice a day as much as lies on a shilling of the thin skin of walnuts, powdered.—*Wesley.*

Piles, Ointment for.—Take of emolient ointment, 2 ozs.; liquid laudanum, ½ oz. Mix these ingredients with the yolk of an egg, and work them well together.

Pilewort Ointment, Improved.—The plant, pilewort, *(ranunculus ficaria,)* flowers in March and April. It should be gathered when in bloom, chopped extremely fine, after the roots and plant have been well washed. Boil in lard, without burning, two hours, stirring all the time. Strain while hot. Add 1 dr. of belladonna, 1 dr. each of opium and camphor, powdered. Mix, and make an ointment.

PLEURISY.—Pleurisy is inflammation of the membrane termed pleura, which covers the lungs, and lines the internal surface of the chest. It is caused by obstructed perspiration, through exposure to cold, bleak winds; drinking cold liquors when the body is hot; sleeping out doors, or on the damp ground; wet clothes; exposure to the cold air when in a state of perspiration. It may also be caused by drinking strong liquors, by the stopping of the usual evacuations etc., etc.

The SYMPTOMS are shivering, pain in the head, back, stomach, sickness, and vomiting, despondency, violent pain in one or both sides, difficult breathing, high fever, thirst; the pain is greater when coughing, or when taking in a full breath; the pulse is hard, strong, and frequent.

TREATMENT.—In this disease the temperature of the whole body and its extremities is diminished, while the heat in the affected part is greatly augmented. Allopathists would recur to *bleeding* at once; but that system of depletion is not necessary. Common sense says, *equalize the circulation of the blood*, and this can only be done by restoring that which has been partially lost or diminished, viz., vitality or heat. The disease has been caused by cold; it must be cured by a wise application of heat. Do this at the very beginning of the disease before the patient is debilitated. Give a *vapor bath;* or bathe the feet in warm water, and apply hot bricks wrapped in water and vinegar cloths while the patient is in bed. Give also an *emetic* at the same time. When the emetic has taken effect, give immediately two table-spoons of the sudorific tincture, or half a tea-spoon of the sudorific powders. Continue them, to keep up a gentle moisture on the skin. If they cause vomiting, never mind, for it helps to cure. At night bathe the legs up to the knees in warm water, with a little soap or soda in, for about ten minutes. Let warm herb tea be constantly drank, as balm, hyssop, catnip, pennyroyal, etc.

Apply the rheumatic liquid to the chest or sides; or fomentations of bitter herbs, as hops, tansy, etc., to which add some cayenne tincture.

Salt, cayenne, and brandy, well simmered, and made strong, form an excellent application for pleuritic pains. These means seldom fail to arrest the disease. It may be added, if the bowels are constipated, give a gentle injection, and a gentle aperient. Let the diet be very simple, as sago gruel, arrow-root gruel, common gruel with a squeeze of lemon, etc. During the progress of the disease the cough pill, and the pulmonary syrup, will be of great service. After the pleu-ric

symptoms are gone, take the composition powder, and any of the tonic bitters.

Pleurisy Root.—An American plant. It is expectorant, subtonic, astringent, diaphoretic, carminative, anti-spasmodic, diuretic, etc. It promotes perspiration. It is a valuable medicine for the lungs, promoting expectoration, alleviating difficult breathing in asthma, and especially in pleurisy; hence its name. It is valuable in all fevers; in colics and griping, acute pains in the stomach, and female complaints, as copious menstruation, spasms, and nervous debility. It is a specific in measles. The dose of the root in powder is from 15 to 30 grs. three times a day. Nearly a cup of the decoction may be taken nearly as often.

PALPITATION OF THE HEART.—This is a very strong pulsation of the heart, sometimes only occasional, but often continual. It arises from morbid irritability of the heart; it is often purely nervous, caused, in some cases, by the disordered state of the stomach and bowels, by alcoholic drinks, by excessive venery, by extreme grief, and disappointments preying upon the spirits, all tending to weaken the nervous system. It is sometimes a symptom of other diseases, as indigestion, hysteria. The beating is frequently so violent as to be heard at a considerable distance, and sometimes the effects of the increased action of the heart may be seen on the outside of the clothes. The pulse at the same time is very irregular, and often intermittent. Palpitation of the heart is not to be neglected, as it may lead to serious consequences.

The treatment of this disease is much similar to that for indigestion. The treatment must depend on the state of the body; for palpitation may be the effect of increased vitality, or fullness, or of debility and relaxation, etc. If the system be in a plethoric state, (fullness,) aperients and a spare diet must be enjoined. Avoid all stimulants. In case of general debility, 20 drops of ether, with 1 teaspoon of tincture of castor, in a wine-glass of the infusion of valerian, two or three times a day. When it arises from *disease of the heart*, or of the large vessels, then avoid plethora, much bodily exertion, full meals, and excesses of every kind. The following mixture is valuable:

Tincture of henbane, 2 ozs.; tincture of fox-glove, 3 drs.; sweet spirits of nitre, ½ oz.; mix. A tea-spoon and a half to be taken two or three times a day in a glass of water.

If the action of the heart is very violent, apply a mustard plaster to the left side, or strong hop and poppy-head fomentations. Two grains of hemlock powder may also be taken every seven or eight hours. After the cessation of palpitation, take tonics, sponge the breast with tepid or cold water, and gentle exercise in the open air.

Palpitation of the Heart Cured by Soda-Water.—A lady, about forty years of age, had suffered twelve years from periodical attacks of palpitation of the heart, so violent as to shake the bed on which the patient lay. During one attack, feeling thirsty, she expressed a desire for some soda-water. No sooner had she swallowed the first draught than her palpitation left her, and recurred no more until the period of the next attack. As soon as it commenced, she sent for her medical attendant, and told him what had occurred a month previously, and requested to be allowed to try the same remedy a second time. He consented, but, wishing to ascertain which of the ingredients of the soda-water had relieved the complaint, he gave her a dose of citric acid by itself. This had no effect. He then gave her a dose

of carbonate of soda, which also failed. He then mixed the powders, and gave her some ordinary soda-water, placing his hand at the same time upon her heart. The moment she swallowed the first mouthful, the palpitation ceased, and recurred no more for that time. From that period, whenever the palpitation came on, she could always stop it by this simple remedy. It appears, from the experiments made by medical men, that the carbonic acid was the active element in relieving the complaint, because, until the gas was liberated by the mixture of citric acid and the carbonate of soda, no benefit accrued.—*Journal of Health.*

Palpitation of the Heart.—To 10 drops of the tincture of foxglove, add 10 drs. of camphor mixture, 1 dr. of tincture of columba, and 15 drops of sulphuric ether. Mix, and take 1 tea-spoon two or three times a day.

Palpitation of the Heart.—Drink a pint of cold water. Or, apply outwardly a rag dipped in vinegar. Or, be electrified. Or, take a decoction of mother-wort every night.—*Wesley.*

PALSY, OR PARALYSIS.—It is a disease of debility, or diminished sensibility of the nerves, sometimes of the whole body. It is indicated by a suspension of motion, frequently of one side, rarely the lower extremities from the loins; and it is sometimes confined to a muscle or nerve, as of the bladder and anus, allowing the urine and feces to pass off involuntarily; sometimes the muscles of the tongue, causing stammering and loss of speech; sometimes of the optic nerves, producing gutta serena, or imperfect vision; and sometimes the nerve of the ear, causing deafness.

It is generally preceded by numbness, coldness, paleness, etc. In bad cases, where one-half of the body is paralysed, the speech is much impeded, or totally lost, and convulsions often take place on the sound side. The muscles of the affected side of the face being relaxed, give those of the opposite side an appearance of being drawn up or contracted.

It may be *caused* by an apoplectic attack, anything obstructing the flow of nervous influence from the brain into the organs of motion; hence, tumors, over distension and effusion, distortions of the spine, and thickening of the ligaments connecting the vertebræ, often give rise to it. The long-continued use of sedatives will likewise produce palsy, such as constant handling of white lead; poisonous fumes of metals or minerals; translation of morbid matter to the head; suppression of accustomed evacuations; pressure on the nerves by laxatives; fractures, wounds, or other external injuries, etc.

TREATMENT.—In sudden attacks, the same treatment as in apoplexy. To remove spasmodic symptoms, give the anti-spasmodic tincture every hour. Betwixt give the stimulating drops, followed by herb tea. Steam the parts well with a bitter decoction of herbs; as tansy, hops, wormwood, camomile, catnip, pennyroyal, and betony, or any other bitter herbs. Pour boiling vinegar and water upon them; cover up, and let it infuse some time. Then rub the part with a stimulant, made of salt and cayenne, infused in hot vinegar; or, made of cayenne, whisky, and salt. Twice a day rub the spine of the back with the stimulating ointment; or apply mustard plasters; or sting the place with nettles. Electricity and dry frictions are very good. Once or twice a week give the vapor bath; and two hours after rub the whole body with the stimulating liniment. Dr. Beach recommends the following injection: Cayenne pepper, 1 tea-spoon; lobelia, 2 tea-spoons; boiling water, 1 pt. Let it infuse; stir well, in order

to get the strength out as soon as possible; sweeten with molasses; add ½ pt. of milk, and 1 gill of sweet oil. Give it warm, as much as the patient can bear; this will excite action in the bowels, and promote evacuations. Salt and water will make a very good injection.

If constipation should prevail, coarse, or brown bread, should be eaten, or aperients should be taken, or a dose of castor oil; followed by the continual use of the restorative bitters, introducing the peroxide of iron, say ¼ oz. to 1 pt. of the bitters. Also take a nervous pill, and occasionally the alterative syrup. Let the diet be simple, light, and spare. Take abundant exercise in the open air, when the weather permits.

Palsy, Infusion for.—Take horse-radish, mustard-seed bruised, of each, 4 ozs.; outer rind of orange peel, 1 oz.; infuse in 2 qts. of boiling water in a close vessel for 24 hours. In paralytic affections, a teacup of this warm stimulant may be taken 3 or 4 times a day.

PAINTER'S COLIC; (see "Colic").—This is a dangerous disease; it is attended with severe and violent pain, and paralytic symptoms, and sometimes with nausea, vomiting of acid bile, severe pains; spasmodic pains about the region of the navel, violently shooting to each side; it is often attended by violent spasms of the bowels, with obstinate costiveness. If the disease is not arrested, it may terminate in gangrene, paralysis of the limbs, etc. It is caused by the absorption of lead into the system, chiefly by respiration; hence painters, plumbers, potters, miners, and white lead workers are most subject to it.

TREATMENT.—To some extent the system is impregnated with lead; the great object therefore must be to cause nature to expel the same. The nausea and the vomiting must be arrested by the neutralizing mixture; give a table-spoon every half hour, or as often as vomiting takes place; when it ceases, give the aperient electuary, or the aperient tonic mixture, now and then. When the first symptoms appear, give an injection as follows: Warm water, 1 pt.; salt, 2 teaspoons; anti-spasmodic tincture, 2 table-spoons; and 1 table-spoon of slippery elm.

Apply to the stomach and region of the navel hot fomentations of a strong decoction of hops and poppy-heads, a little anti-spasmodic tincture, and 20 or 30 drops of laudanum to a pint. Give the vapor bath daily; and afterwards apply friction, and rub the body all over with the stimulating liniment. An emetic now and then will be of great use. The injections must be repeated until evacuations are obtained. Drink at the same time a decoction of the sudorific herbs, as balm, catnip, yarrow, peppermint, camomile, etc.

If the disease abates, discontinue gradually the use of the above remedies; do not cease all at once, for the disease is a very insidious one, and may return. The application of dry hot salt, folded up in a bag, is a most valuable remedy. Keep it heating in the oven, and have two bags; change as the one cools. To remove paralysis in any part, apply frequently the stimulating liniment. The diet must be low and sparing.

RHEUMATISM.—This disease commonly occurs in autumn and spring, and seldom in winter or summer, unless the vicissitudes of heat and cold be sudden and frequent. In a plethoric habit, or when attended with fever or super-irritation, it is called *acute or inflammatory rheumatism*; and when with sub-irritation, *chronic rheumatism*.

Acute Rheumatism.—Its symptoms are fever, with pain, swellings, and redness of the joints, as the knees, hips, ankles, shoulders, elbows, wrists, etc. The *fever* rarely continues violent more than *fourteen* days, although sometimes the pain keeps shifting from one

joint to another for some weeks. The pain and sometimes the fever are much increased in the evening, and the former, during the night, is often acute. As the pains become fixed the fever generally abates.

It is caused by exposure to cold, when the body is unusually warm, or by its *partial* application, or from a *continuance* of cold, as wet clothes, etc.

TREATMENT.—In the first place, clear the stomach and bowels by aperients and emetics. If the skin is hot and dry, sponge the body all over with warm water and carbonate of soda, or common soda. If the skin is not very hot and dry, give the vapor bath of bitter herbs. Dry well, and apply the stimulating liniment. Repeat every day. From ten to thirty drops of colchicum or meadow saffron may be given two or three times a day, in a wine glass half full of the camphorated mixture. The diaphoretic powder is very useful in this disease; also an aperient of senna, manna, and cream-of-tartar, in solution. Use the rheumatic liquid, except in case of great debility. In such cases, the camphorated spirit, combined with tincture of aconite and oil of hemlock. This is an excellent rubefacient. Apply it two or three times a day. It always reduces the swellings and mitigates the pain. The alterative syrup is very effectual in the cure of rheumatism.

Chronic Rheumatism.—This sometimes succeeds the acute. It is not so painful, but it abides longer. The period of acute rheumatism seldom exceeds 40 days; after which, if the pain continue, it may be pronounced *chronic*. The joints most surrounded by muscles, and the parts most required for bodily exertion, as the hip and the loins, are commonly the seats of this complaint. When it affects the hip joint, it is called *Sciatica*, and when situated in the loins, *Lumbago*.

TREATMENT.—Keep the evacuations and secretions regular, as directed under acute rheumatism. Take the diaphoretic powder constantly on going to bed. Apply to the body the rheumatic liquid. Take the following:

The sarsaparilla root, sliced and bruised, 6 ozs.; sassafras, shavings of guiac wood, licorice root of each, 1 oz.; mezereon, 3 drs.; distilled water 10 pts. Macerate for 6 hours; then boil down to 5 pints; adding the mezereon and sassafras a few minutes before taking off. Strain for use. A pint nearly should be taken every day.

Alkalies are very useful. Take ½ oz. of bicarbonate of soda, and put it into a pint of pure water. DOSE.—A table-spoon two or three times a day. The vapor bath is also very serviceable, after which rub the body well with the stimulating liniment. It is a good thing to envelop the joints in carded cotton, covered with oiled silk, or gutta percha sheeting; this acts as a vapor bath, by excluding the air. White mustard seed taken inwardly may be tried; also, a decoction of Peruvian bark, sassafras, and gum guiac. Bitters and mild purgatives render great benefit. Friction by the flesh brush, electricity, or galvanism, should be tried. The warm baths of Buxton and Matlock are of essential service. The miscellaneous remedies are invaluable.

Rheumatism.—To those who dwell in damp districts, or damp houses, and are hence subject to rheumatism, coughs, colds, etc., the free use of lemon juice, (when strained, and where it does not disagree with the stomach) is a most effectual preventive as well as a remedy. I have found the regular use of a wine glass or two a day so to strengthen a very delicate constitution, liable to cold on the slightest occasions, that in a short time it defied not only damp, but every inclemency, and all exposure.

A correspondent of the *Medical Circular* vouches for the relief he has experienced from the liberal use of *lime (fresh lemon) juice*, while

laboring under the paroxysms of rheumatism. By repeated indulgence in the above simple acid, for the space of three days, avoiding all stimulating liquids, the most confirmed rheumatism will, he says, relax, and the tone of the muscular and nervous system will be restored to its usual character. The fact was first established by the circumstance of the Jews being, as a general body, scarcely ever affected with the above disease, and this particular exemption from the malady under consideration, as affecting the disciples of the Hebrew persuasion, was, and has been, attributed to the very free indulgence which the above people exercise in their dietary consumption of lemon juice.

When the lemon juice disagrees, either of the two following formulæ may be substituted: Lemon juice (strained or filtered) and molasses, equal parts; powdered sugar-candy, sufficient; mix intimately,—a table-spoon three or four times a day.

Or, take powdered rhubarb, 2 drs.; acetate of potash, 1 oz.; guaiacum, 1 dr.; sulphur, 2 ozs.; 1 nutmeg, grated very fine; molasses, 1 lb. Mix, and take two tea-spoons night and morning.

The seat of rheumatism is in the muscles—electro-galvanism must be used; it is generally the best plan to begin with currents of the weakest power, and gradually to increase their strength so long as the application causes no pain. Dumb bells should be used above all, every day; they should never exceed in weight 1 lb. for ladies, and 4 lbs. for men. Silk is the best non-conductor of cold we have, and it is affirmed that those of the fair sex who wear tight fitting sleeves to their silk dresses are not subject to rheumatism; males should wear thick silk sleeves to all their waistcoats; they can be easily taken off, and tacked or sewn on to another vest; besides the above precautions, flannel must be worn summer and winter by day, "but never by night," next the skin; at night a small flannel spencer or jacket should be worn over the night dress.

Tailors and milliners have much to answer for in introducing such modern inventions as the wide sleeves, and in like manner "the apology of a bonnet;" this last, the cause of tic doloreux, rheumatism, etc.

Rheumatism.—To prevent, wear washed wool under the feet. To cure, use the cold bath with rubbing and sweating; or, apply, warm steams; or, rub in warm molasses, and apply to the part brown paper smeared therewith; change it in twelve hours; or, drink half a pint of tar-water morning and evening; or, steep six or seven cloves of garlic in a half a pint of white wine: drink it lying down. It sweats, and frequently cures at once. Or, mix flour of brimstone with honey, in equal quantities, take 3 tea-spoons at night, 2 in the morning, and 1 afterwards, morning and evening, till cured. This succeeds oftener than any remedy I have found.—*Wesley.*

Rheumatism.—Extract of sarsaparilla, 1 oz. Triturate in 1 pt. of boiling water. Dissolve 2 drs. of iodine of potass; and begin with small doses two or three times a day. Very valuable.

The application of wheat, bran, or oatmeal poultice, diluted with muriatic acid water, or the tincture of lobelia water, has often been known to give relief.

Rheumatism.—Take a large handful of buckbean, 4 ozs. of white mustard seeds, and 1 of lignum vitæ, or wood of life, to 2 qts. of water; boil to 3 pts. Dose.—Three tea-cups a day. Use also the following liniment. Take of sal-volatile. 3 ozs.; oil, 1 oz.; camphor, ½ oz.; laudanum, 1 oz. Rub the part affected with this liniment three times a day.

Rheumatism, Embrocation for, and for Lumbago or Strains.—

Spirits of turpentine, ½ oz.; strongest camphorated spirit, ½ oz.: 1 raw egg; best vinegar, ½ pt. Well mix the whole, and keep it closely corked. To be rubbed in three or four times a day. For rheumatism in the head, or face-ache, rub all over the back of the head and neck, as well as the part which is the immediate seat of pain.

Rheumatism, Embrocation for.—Olive oil, 2 ozs.; water of ammonia, 2 drs.; oil of rosemary, 10 drops; oil of cloves, 5 drops. Mix, and keep tightly corked.

Rheumatic Decoction.—Virginian snake root, 1 dr.; sarsaparilla in powder, 6 drs.; burdock seed, 2 drs.; poke root, 2 drs.; wine-pine bark, 2 drs.; cayenne pepper, ½ dr. Powder them, and add 3 qts. of water. Boil down to 2 qts. A cup two or three times a day. It is most valuable in chronic rheumatism.

Rheumatic Drops.—Extract of sarsaparilla, 2 drs.; gum camphor, ½ dr.; laudanum, 1 scr.; spirit of wine, 1 oz. Mix, and macerate 24 hours. Take from 20 to 50 drops three times a day.

Rheumatic Gout, Draught for.—Camphorated mixture, 7 drs.; infusion of rhubarb, 5 drs; tincture of henbane, ½ dr.; sub-carbonate of potass, 10 grs. Mix for a draught; take two or three times a day, particularly the last thing at night. It is a most excellent remedy.

Rheumatic Liniment.—Take sassafras oil, 2 ozs.; tincture of prickly ash, 1 oz.; tincture of cayenne, 1 oz.; hemlock oil, 1 oz. Mix, and rub well in. A few applications will relieve, if not cure.

Another.—Tincture of cayenne, oil of turpentine, olive oil, hemlock oil, gum camphor, sassafras oil, tincture of prickly ash, of each, 1 oz.; powdered capsicum, or cayenne, 1 oz.; spirit of wine, 2 qts.; vinegar, 1 qt.; ammonia, 1 qt.; add 2 ozs. of gum camphor. Mix; put in a vessel, and stir occasionally till mixed and dissolved.

This is a magic liniment, soon giving ease in rheumatic pains, gout, neuralgia, sprains, etc., etc. It is worth much gold. It seldom or never fails.

Rheumatic Liquid.—Sarsaparilla, powdered, 2 ozs.; cayenne pepper, 1 oz.; gum myrrh, ½ oz.; brandy, or Hollands gin, 2 qts. Let it stand a few days. A tea-spoon in tea, or water sweetened. This is excellent for rheumatism, gout, etc.

Rheumatic Liquid, for External Application.—See "Rheumatism, Embrocation for." Or, "Rheumatic Liniment." Or, "Rheumatic Pains, in the Bones and Joints."

Rheumatic Mixture.—Saltpetre, sulphur, powdered mustard, Turkey rhubarb, sarsaparilla powder, of each, ½ oz; powdered gum guiacum, ¼ oz. Mix. Take a tea-spoon every other night for three nights; then omit three nights; in a wine-glass of cold water.

Rheumatic Pains, in the Bones and Joints.—Take opodeldoc, 1 oz.; tincture of cantharides, 3 drs.; spirits of sal-ammoniac, 3 drs.; rectified oil of amber, 3 drs. This forms a liniment, wherewith frequently to rub the painful part. Wrap up in fine, soft flannel, and keep warm.

Or, take friar's balsam and tincture of myrrh, of each, 1 oz.; spirits of turpentine, 2 ozs.; and good old strong ale dregs, 3 ozs.; mix all of them well together, and bathe the afflicted part with the same.

Or, take a raw egg well beaten; brandy, ½ pt.; turpentine, 1½ ozs.; spirits of wine, ½ oz.; camphor, 1 oz.; salt, 1 table-spoon. Put them into a wine bottle, and shake well. This liniment is to be well rubbed on the affected parts three or four times a day. It has often effected a cure in a few days.

Rheumatic Pill.—Gum guiacum, ½ dr.; compound powder of

ipecacuanha, ½ dr.; confection of opium, 10 grs.; mix, and divide into 20 pills. Take two on going to bed.

Rheumatic Powder.—Ipecacuanha powder, and purified opium, of each, 1 part; sulphate of potass, 8 parts; triturate them together to a fine powder. Be very careful to reduce the opium, and intimately mix with the rest. This powder is recommended by Dr. Dover as an effectual remedy for rheumatism. The dose is from two to five grains, repeated. Avoid much drinking after taking it, or it might act as an emetic.

Col. Birch's Recipe for Rheumatic Gout or Acute Rheumatism, commonly called the "Chelsea Pensioner."—Half an ounce of nitre (saltpetre), ½ an oz. of sulphur, ½ an oz. of flour of mustard, ½ an oz. of Turkey rhubarb, ¼ oz. of powdered gum guaiacum. Mix: a tea-spoon to be taken every other night for three nights, and omit three nights, in a wine-glass of cold water—water which has been well boiled.

RING WORMS.—Dissolve borax in water, and apply till it produces redness, and a painful sensation. Discontinue a day or two, and ultimately it will effect a cure.

Ring Worm.—Wash the head with soft soap every morning, and apply this lotion every night: One drachm of subcarbonate of soda, dissolved in half a pint of vinegar.

Ring Worms.—Apply rotten apples, or pounded garlic. Or, rub them with the juice of house-leek. Or, wash them with Hungary-water camphorated. Or, twice a day with oil of sweet almonds and oil of tartar mixed.—*Wesley.*

Ring Worms.—To 1 part of sulphuric acid, add 16 to 20 parts of water. Use a brush or feather, and apply it to the parts night and morning. A few dressings will generally cure. If the solution is too strong, dilute it with more water; and if the irritation is excessive, rub on a little oil or other softening application; but always avoid soap.

Dr. Chapelle adopts the following plan: The hairs are to be cut short, the creamy fluid let out of the pustules, and the crusts removed by linseed poultices. The denuded surface is then to be covered with a thin layer of oil of naphtha, over which a flannel compress is to be placed, the whole being secured by an oil silk cap. The application is to be renewed twice a day; first well washing the parts with soap and water; the surface of the scalp is to be carefully searched, in order to detect any small favose pustules that may have appeared. These must be pricked with a pin, the matter removed, and the surface covered with the oil. This evolution of pustules is successive, so that the hair must be kept short in the vicinity, that their advent may be watched. This application secures the rapid abortion of the pustules; but when the scalp is too tender to bear it, it should be mixed with other less irritating oils, of which empyrheumatic oil of juniper is one of the best.

SHINGLES.—Called *herpes, tetters, salt rheum,* etc. It is a disease of the skin; an inveterate eruption on different parts of the body, usually the hands, and sometimes it appears in distinct clusters around or near the waist, surrounding one-half of the trunk of the body, like a belt, generally towards the right side. It is a species of ring worm or tetter.

The eruptions or vesicles which appear break and discharge a thin corrosive fluid which causes much irritation or itching.

TREATMENT.—Keep the body open by the black draught, and

seidlitz powder; administer tonics in the decoction of sarsaparilla. Give also a vapor bath of bitter decoction, and afterwards rub the body with the stimulating liniment. If there is much fever, give five grains of the carbonate and nitrate of potash two or three times a day. Celandine ointment is very good; when the itching is very troublesome, apply it to the affected parts.

Dr. Beach recommends a wash to be made of celandine and whisky; infuse a table-spoon of the former in the latter; wash often, and then apply the brown ointment. Should the vesicles form or run into a bone, apply a poultice of slippery elm, and a little cream. The tincture of blood-root, and tincture of myrrh, make a good wash. Apply, as before, the brown ointment. The tepid water cloth is a good application to allay itching. The warm baths should often be taken.

SORE THROAT.—The old nurse's remedy is good, "Put your stocking round your neck going to bed." But I have found a piece of *new* flannel quite as beneficial, if put warm round the neck. The following gargle is useful either for ulcerated or common sore throat Make a strong solution of alum to every half pint of which add two table-spoons of port wine; gargle the throat several times a day. In ulcerated sore throats, it is safest to have the ulcers touched with caustic immediately on their appearance. Or, gargle with a mixture of yeast and milk, and take a wine glass of good yeast once or twice a day. Sage and vinegar are generally recommended for a gargle. It is best to add a little salt, and from 15 to 30 drops of laudanum. Or, apply a cold water cloth, wrung out, to the throat, covered with a dry flannel.

In the first stages of the disease, a mild emetic will be useful. In bed apply to the throat a bag of hops saturated with hot vinegar and a little salt, or camomile flowers moistened with hot vinegar, and 20 or 30 drops of laudanum. The remedies under "Quinsy" are appropriate here. Apply to the feet and sides hot bricks covered with vinegar cloths. If constipated, take an aperient, and afterwards the Composition Powder.

Sore Throat.—Five spoons of the syrup of elderberry; mix with one spoon of honey, and as much powdered sal prunella as will lie on a shilling. Take a tea-spoon frequently.

SORREL—To Stew.—Wash the sorrel, and put it into a sliver vessel, or stone jar, with no more water than hangs to the leaves Simmer it as slow as you can, and when done enough, put a bit of butter in, and beat it well.

SHORTNESS OF BREATH.—Take of vitriolated spirits of ether, 1 oz., and of camphor, 12 grs. Make a solution, of which take a tea-spoon during the paroxysm. This is usually found to afford instantaneous relief in difficult breathing, depending on internal disease, and other causes, where the patient, from a quick and very laborious breathing, is obliged to be in an erect posture.

Or, take ¼ oz. of powder of elecampane root, ½ oz. of powder of licorice, as much flour of brimstone and powder of anise-seed, and 2 ozs. of sugar-candy powdered. Make all into pills, with a sufficient quantity of tar; take four large pills when going to rest. This is an incomparable medicine for an asthma.

SPASMS.—Oil of red lavender, 1 part; sal-volatile, 1 part; oil of peppermint, 2 parts. Mix, and take 10 or 12 drops in half a wine glass of lukewarm or cold water. If the first dose is not efficacious, repeat.

Spasms—Certain Cure for.—Take three pennyworth of balsam of

sulphur, and the same quantity of the oil of anise-seed; put these together, and let them stand in a warm place for 24 hours. Then take two pennyworth of the spirits of wine, and two pennyworth of the spirits of turpentine; put these together, and let them stand as above; then mix the whole well together. Take 7 or 8 drops on a piece of loaf sugar, when the pain is on; it will give instant relief.

STAMMERING—Dr. Turner says is caused by attempts to speak with empty lungs. In singing the lungs are kept well inflated, and there is no stuttering. The method of cure is to require the patient to keep his lungs well filled; to draw frequent and long breaths, to speak loudly, and to pause on the instant of finding embarrassment in his speech. Taking a long inspiration before he goes on again. I cured one of the worst cases I ever knew on this principle.

Stammering.—Frequently read aloud with the teeth closed, and tap with the finger at every syllable pronounced.

STITCH—In the Side.—Apply molasses spread on brown paper.

SPERMATORRHŒA.—A discharge of seminal fluid, commonly called seminal weakness or debility. It is only of late years that the true nature of this disease has been properly understood, many of the most serious cases having been regarded as and treated for *gonorrhœa*, which, though indeed the proper name of the disease, is a term now confined to an unhealthy discharge from the lining membrane of the *urethra*, a discharge which, when long standing and chronic, becomes a gleet, and is *always the result of infection*. Spermatorrhœa, on the contrary, proceeds from an injury inflicted on the organs of reproduction, and consists of a discharge from the spermatic and seminal vessels, and may be entirely, and in many cases is, completely irrespective of all venereal taint.

Spermatorrhœa is a disease that could hardly, by any possibility, arise in a natural way; no organic affection of the part, no amount of debility, or complication of accident or disease, indeed, could produce what is called seminal emissions, did not the patient, by incontinence or vice, provoke the cause, and engender the disease himself. Many men are so inordinate in their passions, that in time they amount to a mental disease, such as we have already characterized under the name of *satyriasis*, an intemperance which, if given way to, so debilitates their bodies and paralyses the seminal organs, that whether unduly excited or in a state of temporary rest, they are kept in a condition of constant irritation and involuntary excitation; thus, whether sleeping or waking, often from the most trivial contact, indeed from the mere force of the imagination alone, those debilitating emissions, which constitute the most important feature of this disease, are repeatedly taking place. But though incontinence in youth is often the cause of spermatorrhœa, the disorganization of the spermatic system, and the ruin of connubial happiness, it is unfortunately to the vice of self-pollution, that moral offense known as onaism, that we must in general attribute that moral prostration and physical incapacity now so wide spread among the youth of the present generation, and of which the disease we are at present considering is only one of the lamentable evidences.

We had intended to devote a space of this work to the injury inflicted on the reproductive organs by the inconsiderate folly of youth, but for reasons which will be readily understood by all who remember the strictly domestic nature of this work, we have deemed it best to embody the pith of what we might have said on such a subject in this place, as being more pertinent to the theme, and at the same time keeping the pages of the Recipe Book generally free from what, to

many, might be thought objectionable matter. Of the moral unhappiness and physical misery resulting from the vice of self-abuse, few think at all, or, if they do, regard what they hear as bugbears, or evils only problematical when compared to present enjoyment. As a few practical truths will go farther in illustrating our point, and showing the evils we have alluded to, than a page of wholesome counsel, we beg those of our readers who may consult this article to remember that every emission unnaturally produced *consumes between 6 and 8 ounces of blood*, or, in other words, that that amount of arterial blood is required to eliminate the seminal fluid *lost at one emission*. If it is further remembered that there are only 30 pints—old measure—of blood in the adult body, and that the amount of chyle, or new blood, does not exceed twelve ounces a day, it will be easily understood, on the commonest principles of arithmetic, how fatal to the stamina of the body must be two, three, or more such emissions in the day. So great is the reproducing power in youth up to a certain age, that this drain may be borne with apparent impunity for some time, but sooner or later it is *certain* to show its influence on the system; for it is an established fact, that *no law of nature can be abused* without entailing a *fearful penalty*. In this case it is emaciation, weakness, loss of appetite, dimness of sight, pains in the back and head, hot and feverish sleep, disturbing dreams, loss of memory, and too often a total prostration of the mental and physical powers. To render this subject, and what we have yet to say upon it, more intelligible, the following abstract of the physiology of the organs in question will be found both interesting and useful: The spermatic cord brings from the aorta a stream of arterial blood to the organ inclosed in the scrotum, and known as the testicle; or rather, when the cord reaches the bag of the scrotum, it instantly diminishes in calibre, and becomes as thin as the finest thread, and of several hundred yards in length. For the closer and more convenient disposal of this immense length of vessel, nature has wound it up like a ball of cotton, in which shape, under the name of testicle, it hangs at the end of the spermatic cord; from the opposite end of this ball or *testis* a vessel rises, called the *vas deferens*, which, running under the bladder, receives a duct from a small gland, the *vesicula seminalis*, and then entering the prostrate gland, is joined by its fellow of the opposite side, when it receives the name of *ejactatory duct*, which finally terminates in the bulb of the urethra. The blood brought by the spermatic cord to the testicle is in that organ converted into seminal fluid, and carried by the vas deferens to the urethra, receiving on the way a vitalizing fluid from the seminal gland; it will now be understood, that as the excitement is given, the *semen* passes at once along the vas deferens, and into the ejactatory duct, which propels it into the urethra at the proper moment. The physical consequence of the abuse of these organs is, after a time, a total deterioation of the seminal fluid, which, instead of the proper consistency, becomes thin and watery; the vitality, on which all its potency depends, appears entirely gone, for it has no longer the power to produce a natural erection, and, as a germinating fluid, is absolutely sterile. Though, unable, however, to perform their healthy secretion, the spermatic organs, under the stimulus of a constant and irritating excitement, form a thin, watery secretion, which either runs away from the urethra like a gleet, or is discharged by involuntary emissions. The scrotum, instead of being rough, firm, and contracted, and the testicle within feeling hard, and compact, is flabby, relaxed and pendulous, and often thrice its natural length; while the spermatic cord, greatly attenuated, is terminated at

the bottom of the lengthened scrotum by a soft, oblong mass, that we can only believe to be the testicle by its relative situation. The moral consequences of this diseased state are often more distressing than the physical; the mind, too, sooner or later, becomes affected, a trembling palsy keeps the head and hands in constant tremor, while a tenacious saliva, in severe cases, drivels from the mouth; and should the patient think by marriage to effect a physical cure, and break through an evil habit, the experiment is certain to end in misfortune and unhappiness; nervous anxiety will render all intercourse a failure, thereby embittering not only his own life, but that of another, for in such a case there can be neither sorrow nor pity, but only contempt. As we have said enough on this subject to lead any one capable of reflection to contemplate the fatuity of mind, bodily prostration, and life of misery that must follow a continuance of such practices as those which have induced such a train of consequences, we shall now proceed to show by what TREATMENT spermatorrhœa, and the impotency which sooner or later follows it, may be cured. In the first place it is a *sine qua non* that the patient should abstain from all the habits and practices which have brought on the disease, and instead of daily robbing his body of large quantities of blood, he should endeavor, by an altered life, to add to the quantity and quality of that vital fluid. In the directions given for food and exercise, the patient should be punctual and regular, as the cure depends as much on the observance of the following rules as on the medicines to be taken: First, then, the patient should go to bed at 10 o'clock, and be careful to put no more clothes on the bed than are actually necessary; he should rise at seven in the morning, and the instant he wakes *get out of bed*, and having over night prepared a hip bath of cold salt water, seat himself in it, using a towel or a flesh brush to rub the water well into his hips, back, and thighs; after five minutes so spent, he must rub himself thoroughly dry with a rough towel, then dress, and proceed to take an hour's brisk walk. Those who cannot obtain a bath should use a sponge and cold vinegar and water, or salt and water. The breakfast should be taken at eight o'clock, the dinner at one, tea at six, and supper at nine o'clock; and to insure sleep on going to bed, prevent dreams, and the hectic flushes and irritating desires which at first may arise, he should take 20 drops of laudanum, or 30 drops of the liquor of of the acetate of morphia, half an hour before going to bed. After the first few weeks, and when the system begins to feel the benefit of the altered treatment, the sedative may be easily broken off by reducing the quantity taken by two or three drops every night. Once a week the patient should take a shower bath in the evening, *in addition* to the daily hip bath or sponging. The mind is to be kept constantly employed, either by some mechanical employment or by reading, care being taken that the matter read shall be of a healthy and moral tone; the patient must also avoid heated rooms, theatres, all places of amusement, and, as far as possible, female society, and never allow his hands or his mind to be unemployed. Exercise by walking, rowing, or the dumb-bells, according to the strength of the patient, should be adopted between each meal as far as possible. The diet must be light but nutritious, with a due proportion of animal and vegetable food at every dinner; wine and spirits should be strictly excluded, except in cases of great debility, but stout may be advantageously taken at least twice a day; those who can neither take stout nor porter may substitute copious draughts of new milk for their beverage. The bowels are to be kept open by an occasional compound colocynth pill, or a dose of castor

oil, but *only* occasionally. In severe cases, the lower portion of the spine should be well rubbed with a stimulating liniment, and one of Pulvermacher's electro-galvanic belts worn for an hour or two daily round the hips, and under each testicle. The internal remedies are almost secondary to those means just enumerated; but where the appetite is faulty, the following powder should be taken till the stomach is able to accept and digest the food given to it:

Take of dried carbonate of potass, 1 dr.; powdered ginger, 36 grs; powdered colombo, 48 grs.; powdered rhubarb, 24 grs. Mix, and divide into 12 powders. One to be taken, in a little water, an hour before breakfast, dinner, and tea. When the stomach has been brought back to its healthy function by the powders, or before, if the digestion is good, the following are to be given, each for three days consecutively.

No. 1. Take of colombo root, 1 dr.; cascarilla, 1 dr.; bruise, and infuse in boiling water, 10 ozs.; strain when cold, and add quinine, 1 dr.; diluted sulphuric acid, 50 drops. Mix, one table-spoon to be taken every six hours.

No. 2. Take of quassia raspings, 1 dr.; orange peel, 3 drs; infuse in boiling water, 10 ozs.; strain, and add tincture of the muriate of iron, 2 drs. Mix. A table-spoon every six hours.

No. 3. Take of precipitated carbonate of iron, 2 drs.; carbonate of soda, 1 dr.; ginger powder, 1 scr. Mix, and divide into 12 powders. One to be taken every six hours.

In concluding this subject we would beg all of our readers who consult this article to banish the idea that there is any balsam, whether of Gilead or of Mecca, that posseses any power that can afford the slightest benefit in such cases as those of which we have just treated, and at the same time we feel it our duty to warn all to shun the meshes of that host of empirics who profess to cure this disease by their Syrian nostrums and boasted remedies; medicines which, in most cases, are as inoperative for good as they are mendacious in principle. A moral reformation, wholesome food, and a system of ablution, exercise, and external remedies, are the only practical means that can possibly influence the character or effect a cure in this disease.

St. VITUS'S DANCE.—This is a convulsive disease, principally attacking children from 10 to 16 years of age. It is indicated by a twitching and convulsive action of the muscles of the body, and by lameness or unsteadiness of one of the legs, which the patient draws after him like an idiot. Then it affects the hand on the same side; so that if a glass of liquor be put into his hand to drink, before he can get it to his mouth, he uses a great number of odd gestures, on account of the hand being drawn different ways by the convulsive action of the muscles, so that he cannot carry it in a straight line. The will of the patient seems often to yield to these convulsive motions as to a propensity. After continuing some weeks, the intellectual operations of the brain are weakened. Females are most subject to this disease.

This disease arises from an increased irritability of the nervous system, which is often produced by some derangement of the stomach, bowels, and nerves; sometimes by worms, violent passions, fright, or violent mental emotions, etc. In females it probably arises from the same causes which produce hysterics.

TREATMENT.—The irritation of the cerebral system (brain and nerves) being generally symptomatic of a disordered state of the digestive organs, or kept up by irritation in the stomach or bowels, the cure must be commenced by a purgative. Do not allow the bowels to be constipated. If the stomach is deranged, give an emetic. (See

"Emetic.") This will evacuate and cleanse the stomach, give it tone, and benefit the nervous system. Repeat, if necessary. The diet must be very plain. The vapor bath of bitter decoction is of immense service. Rub the body frequently with the Stimulating Liniment. When symptoms of improvement are manifest, give Peruvian bark in port wine, adding water if too strong; or give the Restorative Wine Bitters, adding a ½ oz. of the red oxide of iron. Give the aperients now and then, especially the Dyspeptic Pill. The subcarbonate of iron, 2 drs. for a dose, is a most valuable remedy. It may be given in a little syrup, beer, or porter.

Dr. Reese says, "When the symptoms are abated, cold bathing every morning, if it does not alarm the mind, will prove of great advantage; and with the use of the muriated tincture of steel, in the dose of 10 or 15 drops, in a glass of cold valerian and camomile tea, will probably complete the cure; if the patient have not sufficient resolution to go into the cold bath, cold water may be applied every morning to the head; the diet should be regulated according to the strength of the patient; if plethoric, a low diet should be observed, and wine and stimulants avoided. On the contrary, if the body be much debilitated a nutritious diet should be employed, but even in this case wine should be allowed with great caution.

SMALL POX.—This dreadful disease is very infectious, attended with inflammatory fever, assuming sometimes a typhoid character, attended with nausea and vomiting, and upon the pressure of the stomach, with much pain. The constitution that has been once really under its influence is rarely liable to a second attack. When the pustules are separate from each other, it is termed *distinct;* and when they run together, it is denominated *confluent.*

The first symptoms are shivering pains in the head, back and loins, redness of the eyes, fever, thirst, nausea, loss of appetite; and in some cases, a few hours before the eruption, children are affected with convulsions. The eruption appears about the *fourth* day of the *fever*, first on the face, and afterwards on the neck, breast, and body. The pustules gradually enlarge, and proceed to maturation which is complete about the *eleventh* day after their first appearance, when the inflammation and swelling abate, the eruption beginning to dry and scale off, and about the fifteenth day it entirely disappears. The confluent sort is attended with more violent symptoms than the distinct, but observes the same period of termination. Dr. Beach says, "The effluva is very offensive; and I have seen worms, or maggots crawling in the flesh; and yet the patient has recovered." This disease generally terminates favorably under judicious treatment, unless the subject of it is intemperate, in which case it proves very dangerous, or fatal.

TREATMENT.—The great object is to assist nature to expel the morbific or poisonous matter from the system. If the patient has much vomiting, give 10 or 12 grains of bicarbonate of potash in balm tea twice or thrice a day. The bowels must be opened by gentle aperients, attention must be given to the skin, and medicine given to produce a gentle determination to the surface. Take an infusion of saffron and catnip, or balm and hyssop, with 10 drops of elixir of vitriol; this will aid nature to drive out the eruption, by producing a moisture of the skin. It should be repeated several times. Bathe the feet twice a day in warm lye water, and wash the body with the same liquid warm; do not neglect this if the fever is high. If there is pain in the head apply a mustard poultice to the soles of the feet in addition to bathing the feet and legs in warm water. Apply to the head cloths dipped in vin-

egar and water, or whisky and warm water. Let the room of the patient be well ventilated, and often sprinkle it with vinegar and water; do not cover him up close. Give warm diluents, as balm, spearmint, pennyroyal, catnip, etc.; any of these will do. If the throat be sore, administer remedies under "Sore Throat." Sage tea, a little vinegar, and a little borax, form a good gargle. The expectorant tincture is very useful.

If the debility is great, and the strength gradually sinking, give tonics, as quinine dissolved in elixir of vitriol; 10 or 12 drops in balm tea three or four times a day. If there is considerable irritation, give 8 or 10 drops of laudanum in the "Saline Draught," which see. Or, give 5 to 10 grains of the "Diaphoretic Powder." Sudorifics are also very serviceable, especially when the pustules are flabby, and not well filled.

If the symptoms become unfavorable, as the striking in of the eruption, great fever, and delirium, black tongue, etc., the danger is very great. In such case, give immediately the vapor bath of bitter decoction, and an emetic; then give a decoction of saffron and Virginia snakeroot with a tea-spoon or two of sweet spirits of nitre. Give also the Sudorific Powder, and at intervals the Seidlitz Powder. Sponge the surface of the body with warm water. If there is any tendency to putrescency in the fluids, give a wine glass of yeast several times a day.

Dr. Anthony Thompson says, "The sulphuric acid combined with wine is the only remedy on which we can rely in the confluent small pox, when the pustules are filled with a bloody sanies, and the urine is colored by broken down particles of blood."

Camphor is valuable in this disease.

To prevent the pustules from affecting the eyes, cold water cloths should be continually applied.

While the fever continues high, the diet should be mild and rather spare, as barley gruel, sago gruel, beef tea without salt.

When the pustules begin to maturate, the patient may be permitted gradually to take to his usual diet; and if the crop be considerable and the strength of the patient much reduced, provided he be free from fever, a little port wine, diluted with water, may likewise be allowed after dinner

Small Pox.—The *Sarracenia Purpurea*, or Indian Cup, a native plant of Nova Scotia, the specific used by the Indians against the small pox, bids fair to realize the expectations entertained by medical men of its efficacy. In a letter addressed to the *American Medical Times*, Dr. Frederick W. Morris, president physician of the Halifax Visiting Dispensary, states that the *Sarracenia*, a papaveraceous plant, will cure small pox in all its forms within twelve hours after the patient has taken the decoction. "However alarming and numerous the eruptions," he says, "or confluent and frightful they may be, the peculiar action of the medicine is such that very seldom is a scar left to tell the story of the disease. If either vaccine or variolous matter is washed with the infusion of the *Sarracenia*, they are deprived of their contagious properties. So mild is the medicine to the taste that it may be mixed with tea and coffee, and given to connoisseurs in these beverages to drink without being aware of the admixture. The medicine has been successfully tried in the hospitals of Nova Scotia, and its use will be continued."—*Galignani.*

"We are now favored with the following particulars respecting this valuable plant. The *Sarracenia Purpurea*, or Indian Cup, a native plant of Nova Scotia, found in swamps and moss-bogs, has the wonder-

ful reputation among the Mic-Mac Indians of curing small pox; and of being as great a specific in this disease as quinine for ague. It is supposed to act by neutralizing the virus in the blood, rendering it inert and harmless; and that this is its action may be gathered from the fact that if either vaccine or variolous matter may be washed with the infusion of the Sarracenia, it is deprived of its contagious property. Moreover the eruption, even if confluent, on its disappearance, leaves no trace behind. The root of the plant is the part employed. The dose, when reduced to powder, is about a dessert-spoon, simmered in a pint of water down to half a pint; this is usually divided into two doses, to be taken during the day. Sugar should not be used with it." —*Galignani.*

Small Pox—Prevention of Pitting in.—Mr. Startin, the senior surgeon in the Gurney Hospital for diseases of the skin, has communicated to the *Medical Times* a very important plan, which he has adopted during the last fourteen years, for preventing pitting in small pox, and which, he states, has always proved successful. The plan consists in applying the *acetum cantharidis* or any vesicating fluid, by means of a camel's-hair brush, to the apex of each spot or pustule of the disease, on all the exposed surface of the body, until blistering is evidenced by the whiteness of the skin in the parts subjected to the application, when the fluid producing it is to be washed off with water or arrow-root gruel. The pain attending the application of the vesicating fluid, is very slight and transient.

Small Pox—To Prevent Pitting in.—The following has been found very effectual: The application consists of a solution of India-rubber in chloroform, which is painted with a camel's-hair pencil over the face (and neck in women), when the eruption has become fully developed. When the chloroform has evaporated, which it very readily does, there is left a thin elastic film of India-rubber over the face. This the patient feels to be rather comfortable, as it removes itching and all irritation; and what is more important, "*pitting*," once so common, is *thoroughly prevented* by the application. In making the solution, the India-rubber must be cut into *small pieces*, and chloroform added till it is dissolved. Gutta-percha has been tried, but has not answered, on account of its non-elasticity. Should any of the solution, from some cause, be torn off, apply the solution as before.

Small Pox—Pitting in.—Dr. George recommends the use of prepared calamine, for the exclusion of the atmospheric air. In a very severe case, which occurred in my practice, in which the face and throat were frightfully swollen, I dressed one-half of it with calamine powder, and the other half I pencilled over, using a flat hair pencil, with sweet oil and the white of an egg, in equal parts well mixed, three or four times a day. No solution of India-rubber or any other substance, would have answered the purpose better; and its application was certainly attended with more comfort than that of the use of the powder. But it is not only the pitting which is prevented by the calamine, but the rescuing of the patient from a state of suffering bordering upon misery.

He recommends the following treatment to the public. Firstly, from the commencement of the disease I would cover the whole body, face and all, with the calamine, shaken through a common pepper-box, taking care that the powder does not remain in masses. The inflammation on each pustule is by these applications much lessened, a point of great consequence.

Secondly, sprinkle about 1 ounce of powdered camphor every two

or three nights between the under sheet and blanket, the whole length of the body, putting more about the shoulders and neck. The relief obtained by this, few would credit until they had had experience.

Thirdly, in the advanced stage of the disease, should hardened incrustations have formed, they may be removed, and without much pain too; for in one case I removed every portion of the cuticle from the whole face, forehead, and even eyelids, applied the calamine, and in a few days the cuticle was reformed without a blemish.

Small Pox—In Sheep.—The medicines which have been used in the case of the Allington flock have been very simple, consisting chiefly of the nitrate of potass, dissolved in the water which is placed in the troughs until a subsidence of the fever takes place, after which sulphate of iron has been substituted. When diarrhea has come on—as it not unfrequently does in the latter stage of the malady, more particularly if the disease becomes confluent—opium is resorted to as a valuable agent to arrest the attack, which, if not arrested, speedily becomes fatal.

Cure for the Small Pox.—A correspondent of the Stockton (California) *Herald* speaks as follows concerning the small pox and its remedy.

"I herewith append a recipe which has been used to my knowledge in hundreds of cases. It will prevent or cure the small pox though the pittings are filling. When Jenner discovered cow-pox in England, the world of science hurled an avalanche of fame upon his head; but when the most scientific school of medicine in the world—that of Paris—published this recipe and panacea for small pox, it passed unheeded; it is as unfailing as fate and conquers in every instance. It is harmless when taken by a well person. It will also cure scarlet fever. Here is the recipe as I have used it, and cured my children of scarlet fever; here it is as I have used it to cure the small pox; when learned physicians said the patient must die, it cured: Sulphate of zinc, 1 gr.; fox-glove (digitalis), 1 gr.; ½ tea-spoon of sugar; mix with two table-spoons of water. When thoroughly mixed add four ounces of water. Take a spoon every hour. Either disease will disappear in twelve hours. For a child smaller doses, according to age. If counties would compel physicians to use this, there would be no need of pest-houses. If you value advice and experience, use this for that terrible disease.

SCRATCHES.—Do not neglect them. Wash them in cold water; close them as much as you can, and cover with diachylon plaster. If there is inflammation, apply a bread poultice, or one of slippery elm.

SCROFULA.—The Latins termed this disease scrofula, from *scrofa*, a hog, because it has been observed in swine. It is called the *King's Evil*, because Edward the Confessor, and other succeeding kings, both of England and France, pretended to cure it by the touch. Queen Anne, in 1807, by proclamation invited her scrofulous subjects to the royal touch.

The disease is well known, and requires little description. It is generally seen in the glands of the neck, in the ligaments of the joints, and even in the substance of the bones. The glands of the mesentery are often tumefied, and accumulation takes place in the substance of the lungs, forming tubercles.

TREATMENT.—This must depend on the state of the constitution, and the structure of the parts affected, etc. When the lungs are the seat of the mischief, it produces pulmonary consumption; when it exists in the ligament of a joint, it is called white swelling. The gen-

eral health should be regarded, and means adopted to establish it. To invigorate and strengthen the absorbent system, cold bathing, and the sea air has been very beneficial; and the mineral waters have not been useless, though they are not a specific. All these means, however, do not apply to scrofula in the lungs. Administer the vapor bath of bitter decoction; give tonics, and an emetic occasionally; rub the tumors freely with the stimulating liniment night and morning; and the body with salt and water every morning.

If the tumors are much inflamed, apply a poultice of bran and slippery elm bark. Linseed meal and slippery elm are very good. Apply cold, and renew when dry. The poultice is almost sovereign when the tumors burst, if it is mixed with the pulverized bark of the root of bayberry, and a little sweet oil. First, cleanse the tumor well with soap and water; then apply the poultice. The extract of clover is very good for this purpose. It is made by boiling down the flower in water, and evaporating the liquid.

Iodine has been highly recommended by many English and French physicians, as a specific remedy for scrofula; and, for the very favorable results I have witnessed, in a great variety of cases, I am disposed to consider it to possess anti-scrofulous properties. The best preparation is the spirituous solution termed the tincture of iodine, which may be administered twice a day, in the dose of three to fifteen drops, in a wine-glass of a decoction of marshmallow roots, or of Peruvian bark, if the patient be in a debilitated stage.

"Devonport's syrup of iodide of quinine and iron is a ternary compound of marked efficacy, in cases of scrofula, and of bloodlessness *(anæmia)*. It is borne well by the stomach, and not possessing the nauseous qualities of its constituents, is admirably adapted for children."—*Dr. Graham.*

The scrofulous patient must have a nourishing diet, plenty of exercise, and an abundance of fresh, pure air.

Scrofula, or King's Evil.—Take as much cream-of-tartar as lies on a shilling every morning and evening. Or, drink for six weeks half a pint of strong decoction of devil's bit. Or, make a leaf of dried burdock into a pint of tea; take half a pint twice a day for four months. I have known this to cure hundreds.—*Wesley.*

SCURVY.—This disease arises from a depraved state of the blood, which induces general debility, and a corruption of all the fluids. It is characterized by extreme diminution of vitality, such as a very pale and bloated complexion, spongy gums, livid spots on the skin, offensive breath, swelling of the legs, foul ulcers, fetid urine, weakness, etc.

This disease arises from the want of fresh provisions, and a due quantity of vegetables; probably assisted by the prevalency of cold and moisture, and also such other causes as depress the nervous energy, as indolence, confinement, neglect of cleanliness, much labor and fatigue, sadness, despondency, etc. A preternatural saline state of the fluids is assigned by Dr. Cullen as its proximate cause. The reason that salted meat is so productive of scurvy is, because it is drained of its nutritious juices, which run off in brine, its fibres being at the same time hardened, and rendered more difficult of digestion.

TREATMENT.—Abstain from salt as much as possible. A diet of fresh vegetables, and a beverage strongly impregnated with the juice of lemons, oranges, and the sub-acid fruits, are more efficacious in the cure of this disease than the most powerful anti-scorbutic medicines. The essences of malt and spruce have likewise been found of great service, probably from the quantity of fixed air they contain. When

lemon or orange-juice cannot be obtained, nitre dissolved in vinegar, in the proportion of 1 oz. of the former to 1 qt. of the latter, has been found to afford the best substitute; water acidulated with the nitric acid, is, perhaps, not less efficacious; from 1 to 2 ozs. or more of the former may be given three or four times in the course of the day; and of the latter, a quantity containing about 15 or 20 drops of the nitric acid may be taken every five or six hours. The vitriolic acid, the Peruvian bark, and the red sulphate of iron, are likewise very valuable remedies in the far advanced stage of this disease.

The vapor bath of bitter decoction is very appropriate. A decoction of sassafras and sarsaparilla is very useful—to be taken freely; add the juice of lemon. Steam affected parts with a decoction of bitter herbs. Let the diet be vegetable, consisting chiefly of milk. Emetics are sometimes necessary; tonics always.

Scurvy.—Take 2 ozs. each of field daisies and dandelion roots. Boil in 3 qts. of water down to 1 qt. Take a tea-cup night and morning.

Scurvy.—John Wesley says: "Live on turnips for a month. Or, take tar-water, morning and evening, for three months. Or, 3 spoons of nettle-juice every morning. Or, decoction of burdock; boil 3 ozs of the dried root in 2 qts. of water to 3 pts.; take ½ pt. daily; a decoction of the leaves (boiling 1 leaf 4 minutes in 1 qt. of water), has the same effect. Or, take a cup of the juice of goose grass in a morning, fasting, for a month; it is frequently called hariff, or cleavers. I have known many persons cured by it. Or, pound into a pulp, of Seville oranges, sliced, rind and all, and powder sugar, equal quantities; take a tea-spoon three or four times a day. Or, squeeze the juice of half a Seville orange into a pint of milk over the fire; sweeten the whey with loaf sugar, and drink it every morning new milk warm, to make any whey, milk should be skimmed after it is boiled. Or pour 3 qts. of boiling water on 1 qt. of ground malt; stir them well and let the mixture stand close covered for four hours; strain it off, and use this as common drink; in hot weather brew this fresh every day; it will hardly fail. Or, take morning and evening a spoon or two of lemon juice and sugar; it is a precious remedy, and well tried. Water and garden cresses, mustard, and juice of scurvy grass help in a cold scurvy. When there is a continual salt taste in the mouth, take a pint of lime-water morning and evening."

Scurvy in the Gums.—Make a strong infusion of sage, and dissolve in it a little alum. By means of a cloth apply it to the gums. Burnt alum, mixed with honey, and the juice of celandine, is very good for scorbutic gums, and it *whitens the teeth.*

STONE.—Stone is an accumulation of particles of gravel which unite and form a hard mass, or stone; and they enlarge by successive layers of gravel until they become very large and difficult to remove.

The symptoms are itching at the extremity of the glans of the penis, an increased desire to make water, with more or less pain in making it; even when the bladder is emptied, the pain continues; sometimes there is difficulty in retaining the water; and at other times the flow of it is liable to stop suddenly. The irritation caused by the presence of a stone often produces remote symptoms, as pain in the back and lower limbs.

TREATMENT.—Give diuretic medicines. (See "Gravel.") Drink strong pennyroyal tea; or a decoction of burdock, dandelion, white carrot, and parsley roots. Drink half a cup several times a day. Flannels dipped in the stimulating liniment, combined with tincture

of cayenne, with 30 drops of laudanum, may be applied externally to the region of pain. It is said that a gill of red onion juice and a pint of horsemint tea, drank morning and evening, but not together, will cause a change, and probably dissolve the stone. The following pills may be taken with great benefit: Parsley seeds, powdered, ¼ oz.; Castile soap, 1 oz.; oil of juniper, 30 drops; solidified copaiba, 1 oz. Form into pills. Take two per day. Drink at the same time a solution of saleratus.

Many persons have been benefited by a decoction of the wild carrot. Injections, and the vapor bath, are very useful. When the patient finds it difficult to make water, let him lie on his back for a while, by which the stone may be thrown to the posterior part of the body, and enable him to make water by turning on one or the other side. The diuretic pills should be taken frequently.

Dr. Morris, of Canada, has found that an injection of castor oil, has great effect in relieving sufferings caused by a stone in the bladder, and as the pain and irritation from this cause are often very great, we recommend it to the notice of those laboring under the affliction. Dr. Morris, being afflicted with the stone, tried the experiment on his own person.

"I first rid myself of the contents of my bladder; then with a large syringe I injected through a small leaden tube, reaching to the sphincter, 2 ozs. of cold drawn castor oil, and I cannot express my feelings caused by the change which took place upon its introduction, for it seemed as if a new lower half had been given me. The relief continuing, I went to bed, and can safely say, that I had not known, for some time previous, the pleasure of a sound and uninterrupted sleep. Latterly I never awoke without a wish to make water, and the morning following was the first exception to it. When I did obey the call, I took care, finding that the oil came last, to leave as much within the bladder as I could"

After this the bladder was constantly supplied with 2 or 3 ozs. of castor oil, and under this treatment every symptom of irritation vanished, and during two months no one symptom reappeared to remind him of the existence of the calculous concretion.

Stone.—Beat onions into a pulp and apply them as a poultice to the back, or to the groin. It gives speedy ease in the most racking pain. Or, take morning and evening a tea-spoon of onions, calcined in a fire shovel into white ashes, in sherry wine. An ounce will often dissolve the stone. Or, drink largely of water impregnated with fixed air. Those who have not a convenient apparatus, may substitute the following method: Dissolve 16 grs. of salt of tartar in 6 spoons of water, to which add as much water acidulated with oil of vitriol as will neutralize the salt. They are to be gradually mixed with each other, so as to prevent the effervescence or dissipation of the fixed air as much as possible. Or, boil an ounce of common thistle-root, and 4 drs. of licorice in a pint of water. Drink of it every morning. Or, take a decoction, or juice, or syrup of ground ivy, morning and evening.—*Wesley.*

GALL-STONES.—The gall-bladder is very liable to have a number of calculi formed in its cavity, from the salts in the secretion itself. These calculi, or gall-stones, are of many sizes and shapes; the majority, however, are about the size of a pea; others, again, are as large as a nut, or filbert, and sometimes they are found as large as a walnut.

In many cases these biliary formations never quit the bladder in

which they are formed; or if they do, when very small, pass along the duct without the person being conscious of their transit. When, however, a large one, with jagged or rough edges, gets past the neck of the bladder, and into the duct, it must proceed, and in doing so causes the patient the most acute and distressing pain—a pain that, in the first instance, seems the most difficult to account for, as it commences suddenly, is attended with a sharp, cutting sensation, and though the spot at the first stage is so circumscribed as to be apparently covered by the point of the finger, radiating pains dart from it in all directions, through and up the back. The abdomen soon participates in the disturbance, and becomes tense and tender, while the stomach, sympathizing, rejects its contents, and exhausting retchings are added to the distension and pain of the abdomen. Though the distance the calculus has to travel is so short—only a few inches—yet, owing to the narrowness and unyielding nature of the duct, the diameter of which does not exceed a crow-quill, and there being no propulsive power to urge the obstruction forward, the cause of the pain and constitutional disturbance suffered will be evident to all who reflect on the nature of the parts and the obstacle to be removed.

The TREATMENT in such cases as these is to relax the system as quickly as possible, allay the pain, and, if it can be effected, expand the biliary duct, so as to allow the gall-stone to pass along and fall into the duodenum.

The first of these objects is to be effected by placing the patient in a hot bath, and retaining him in it for seven or ten minutes, and by giving a dose of the following mixture every hour till the pain abates, and by repeating the hot bath, if necessary, twice or three times in the course of the day:

Take of camphor water, 6 ozs.; powdered nitre, 2 scrs.; tartar emetic, 2 grs.; dissolve, and add laudanum, 2 drs.; mix.

Two table-spoons to be given directly, and repeated every hour for three hours, when it is to be intermitted for some time, hot fomentations being laid across the stomach, and the patient being placed on his back with the legs drawn up, so as to relax the muscles of the abdomen.

The hot bath, independent of its relaxing property, causes the expansion of the duct, and also of the bile in the bladder, thereby acting from behind the stone as a propulsive agent, driving it into the bowel.

STRICTURE OF THE RECTUM.—It often proceeds from costiveness, and hardened feces, which lacerate the parts in passing down the rectum; also by drastic purges, piles, etc. The rectum becomes partially or nearly closed by tumors or scirrhus, which renders evacuation very painful, except the feces are in a very liquid state.

TREATMENT.—Eat chiefly bread made of unsifted flour; and small doses, two or three times a day, of the best Turkey rhubarb and magnesia; this aperient has no injurious effect; the same may be said of castor oil; they do not tend to constipation after promoting evacuation.

The rectum may be dilated by the half of a small tallow candle, dipped in sweet oil; or by means of a bougie, sold by chemists. They should be inserted from 10 to 20 minutes. Occasionally take an injection of slippery elm bark and castor oil; retain it as long as possible.

Let the diet be mild, cooling, and easy of digestion; and, if you value ease and comfort, avoid the use of all intoxicating drinks—the great creators of piles, strictures, and diseases of the liver and heart.

SPITTING OF BLOOD.—In cases of spitting of blood, it is often difficult to determine whether it proceeds from the internal surface of the mouth, from the fauces, from the stomach, or from the lungs. When the blood is of a florid or frothy appearance, and brought up with more or less coughing, preceded by rigors, a short tickling cough, a saltish taste, anxiety, and tightness across the chest, its source is the lungs. The blood proceeding from the lungs is usually of a florid color, and mixed with a little frothy mucus only. It may be distinguished from bleeding from the stomach, by its being raised by hacking or coughing, and by its florid and frothy appearance; that from the stomach is vomited in considerable quantities, and is of a dark color.

What is strictly meant by *spitting of blood*, is when the blood is discharged from a ruptured vessel in the lungs, which is technically called *hæmoptysis*. It occurs generally from the age of 16 to 35. It is often an hereditary disease, which implies a peculiar and faulty conformation. It happens to persons who discover the smallest capacity of the lungs, by the narrowness of the chest, and by the prominency of their shoulders, an evidence of difficult respiration. It occurs in persons of a slender, delicate make; to persons of much sensibility and irritability, and whose bodies are of a delicate texture. It arises sometimes from the stoppage of the menstrual flux, from plethora, and violent exercise of the lungs.

One great cause of hæmoptysis is, the deposition of scrofulous matter in the substance of the lungs, forming tubercles. The blood-vessels being partially distended by the pressure of tubercles, are easily ruptured by cough, or bodily exertion.

TREATMENT.—Moderate the discharge of blood by avoiding whatever tends to irritate the body and increase the action of the heart. A low diet should be strictly observed, and external heat and bodily exercise avoided; the air of the room should be cool, and the drink (which should consist chiefly of barley-water, acidulated with lemon-juice) taken cold, and the patient not suffered to exert his voice. After the operation of a little gentle aperient medicine, as lenitive electuary, or an infusion of senna, with a little cream-of-tartar dissolved in it, take 10 drops of laudanum, and 10 drops of elixir of vitriol, in half a cup of cold water. If there is no cough, the laudanum may be omitted.

A little salt and water given will often check spitting of blood, when it comes on. Put the feet in warm water, and give as above, the elixir of vitriol, etc. Give also ipecacuanha powder in small doses, of from one to two grains every four hours.

Emetics have been given in this disease with advantage by Dr. Robinson, and still more lately by Dr. Stoll, of Vienna, who observes, that in discharges of blood from the lungs, ipecacuanha powder often acts like a charm, seeming to close the open vessels sooner and more effectually than any other remedy. The good effects of this remedy are probably the consequence of the compression the lungs undergo during vomiting, from the action of the diaphragm and expiratory muscles.

The recurrence of hæmoptysis should be prevented by invigorating the lungs and purifying the blood, and by the use of cooling and astringent medicines. Keep in the mouth a little alum, or saltpetre. The patient should participate very freely of acidulous fruits, as roasted apples, oranges, lemons, etc. Alcoholic drinks should be strictly forbidden. A decoction of bark with lemon juice, or a few drops of elixir of vitriol, is of great service.

When the symptoms are severe, give 8 or 10 drops of the tincture of digitalis, or a drachm of nitre dissolved in cold water, and afterwards a compound of ipecacuanha and Glauber's salt. In extreme cases, give from 10 to 20 drops of elixir of vitriol every two hours; or give the vapor bath, and an injection, and place hot bricks to the feet in bed. Sugar of lead, 2 grs.; opium, ¼ gr.; made into a pill with a little honey, or molasses and licorice powder, may be given every five hours. The temporary application of cloths dipped in cold water to the genitals will check spitting of blood. Ice is still better. Mustard plasters applied to the legs and feet have been recommended, and found beneficial.

The diet must be light and easy of digestion. The patient must avoid much speaking, and all muscular exertion, and all cold and damp.

Spitting of Blood.—Take a tea-cup of stewed prunes at lying down for two or three nights. Or, two tea-spoons of nettle-juice every morning, and a large cup of decoction of nettles at night, for a week. Or, three spoons of sage-juice in a little honey. Or, half a tea-spoon of Barbadoes tar, on a piece of lump sugar, at night; it commonly cures at once. Infusion of red roses, 5 ozs.; syrup of poppy, ½ oz.; diluted sulphuric acid, 20 drops. Mix. Two tea-spoons three or four times a day.—*Wesley.*

SPRAIN.—Take of camphorated spirit, common vinegar, spirits of turpentine, of each, 1 oz.

Sprain.—Hold the part in very cold water for two hours. Or, apply cloths dipped therein, four times doubled, for two hours, changing them as they grow warm. Or, bathe in good crab verjuice. Or, boil bran in wine vinegar to a poultice. Apply this warm, and renew it once in twelve hours. Or, mix a little turpentine with flour and the yolk of an egg, and apply it as a plaster. This cures in a desperate case.

Weakness remaining after a sprain is cured by fomenting the part daily with beef brine. Suppose the ankle sprained: 1st. Foment it with warm vinegar four or five times every four hours. 2d. Stand, if you can, three or four minutes at a time on both your feet, and frequently move the sprained foot. Sometimes, also, while sitting with your foot on a low stool, move it to and fro. 3d. Let it be gently rubbed with a warm hand at least three times a day. 4th. Two hours after every application of the vinegar, let it be just wetted with spirits of wine, and then gently rubbed.—*Wesley.*

Sprains.—Take a few globules of rhus toxicodendron, and apply to the sprained part this rhus liniment for about 10 minutes, and repeat twice a day for three days. The rhus is sold by the homeopathic chemists.

Sprains of the Muscles of the Back.—Take of Canada turpentine, ½ oz.; soap liniment, 6 ozs.; and one pennyworth of laudanum. Mix, and rub well in before a hot fire.

Sprains, Excellent Remedy for.—Put the white of an egg into a saucer; keep stirring it with a piece of alum about the size of a walnut, until it becomes a thick jelly; apply a portion of it on a piece of lint or tow large enough to cover the sprain, changing it for a fresh one as often as it feels warm or dry. The limb is to be kept in a horizontal position by placing it on a chair.

POLYPUS IN THE NOSE.—Powder a lump of alum, and snuff it up frequently; then dissolve powdered alum in brandy, dip lint therein and apply it at going to bed.

QUINSY.—This disease occurs principally in spring and autumn, when vicissitudes of heat and cold are frequent. It affects especially the young and sanguine, and a disposition to it is often acquired by frequent attacks.

SYMPTOMS.—It commences with an unusual sense of tightness in the throat, particularly on swallowing, which is often effected with difficulty and pain. On inspection, some tumefaction and redness of the fauces may be perceived, which shortly spreads over the tonsils, uvula, and soft palate, attended with a troublesome clamminess of the mouth, fever, headache, delirium, etc. In desperate cases, the tongue and tonsils are so much swollen as to prevent deglutition, and even so as to affect respiration, that the patient is often obliged to be supported in an erect posture, to prevent suffocation. The inflammation generally attacks one tonsil first, which in a day or two it sometimes leaves and effects the other, and not unfrequently quits them both suddenly, and flies to the lungs.

CAUSES.—It is generally caused by the external application of cold air, particularly about the neck. Whatever violently stimulates the fauces, in a plethoric habit, especially, as acrid food, poisons, etc., may produce it.

TREATMENT.—As the inflammation, from the delicate structure of the parts, soon advances to suppuration, *active* means should be *speedily* employed to disperse it. For this purpose the patient should take a full dose of the aperient mixture, and after its operation the saline mixture.

One of the most effectual remedies is an *emetic*. This should be given as soon as the symptoms appear, and repeated as often as necessary. The throat should be steamed with a strong decoction of tansy, wormwood, hops, and camomile flowers, boiled in vinegar and water. Put these into a large pitcher, over which place a funnel, that the patient may inhale the steam for 15 minutes, and repeat it every two hours until the urgent symptoms are gone. Afterwards heat the herbs and bind them on the neck.

A vapor bath is also of the greatest service, benefiting the whole system, and the throat especially. Gargle the throat with a decoction of lobelia and a little gum kino. The steam of hemp-seed is said to be valuable in quinsy. If the patient is constipated, give an aperient. When the painful symptoms begin to subside, apply the rheumatic liquid warm to the throat, as warm and as long as the patient can bear it. Gargle the throat occasionally with a decoction of sage, hyssop, lobelia, catechu, or kino, with a little borax. Do this frequently. Repeat the aperients when necessary, and the feet bathed in warm water and soap.

Let the food, if any be taken, be very simple. Give no spirits, no stimulants, and nothing cold. Hydropathy is very useful in quinsy. Dip a piece of cloth, in the form of a bandage, in cold water, wring it out, and wrap it round the throat, and over it a dry bandage. Repeat when hot and dry. In sore throat, black currant jelly is of great service; and so is the old plan of wrapping the stocking round the throat on going to bed. A good gargle is made of sage and vinegar, with a little *sal ammoniac*. A little sal prunel sucked is sometimes of great use.

Apply a large white-bread toast half an inch thick, dipped in brandy, to the crown of the head till it dries; or, swallow slowly white rose water mixed with syrup of mulberries; or, draw in as hot as you can, for ten or twelve minutes together, the fumes of red rose leaves,

or camomile flowers, boiled in water and vinegar, or of a decoction of bruised hemp-seed. This speedily cures the sore throat, peripneumony, and inflammation of the uvula.—*Wesley.*

Quinsy.—Roast three or four large onions. Peel them quickly, and beat them flat with a rolling-pin. Immediately place them in a thin muslin bag that will reach from ear to ear, and about three inches deep. Apply it speedily as warm as possible to the throat. Keep it on day and night, changing it when the strength of the onions appears to be exhausted, and substituting fresh ones. Flannel must be worn round the neck after the poultice is removed.

Quinsy, Vapor for a.—Take powdered pepper, 1 oz.; milk, 1 qt., and boil them to 1½pt.; put the whole into a glass bottle with a small neck; let the vapor be received as hot as can be borne with the mouth open. This is about the best gargle.

SCIATICA.—A form of Neuralgia.—It derives its name from the pain taking the course of the Sciatic nerve down the hip and thigh. It is often connected with rheumatism and gout, and most of the remedies for those diseases are applicable to Sciatica. The vapor bath is very serviceable. Rub also with the rheumatic liquid, or the tincture of aconite; galvanism applied is also good, also an embrocation composed of one part of turpentine, two of soap and opium liniment, and one of tincture of cayenne. A hot bran poultice sprinkled with laudanum, often gives ease. Take an aperient if necessary, avoid all alcoholic drinks, and take light nourishing food. Sciatica often occurs in persons of broken constitutions. Tonic medicines are appropriate to them, as quinine and iron, or the bitters, which see.

Sciatica.—An extremely painful affection of the sciatic nerve; a species of neuralgia. The peculiarity of this disease lies in the fact that it is confined merely to the nerve itself, the pain residing exclusively in that cord, from the spot where it issues from the pelvis at the flat of the hip, down the thigh and leg, till it is eventually distributed over the top of the foot, the patient being able to describe with his finger the exact course of the nerve from the hip to the toes.

Sciatica is in general regarded as a rheumatic inflammation of the sciatic nerve.

The symptoms of this disease are too special and distinctive to require description: the acute pain along the course of the nerve is quite sufficient to define the nature of the affection, without any other descriptive feature.

The treatment alone demands our attention. In a first attack, when the pain often amounts to a degree of suffering scarcely bearable, the application of a dozen leeches on the hip, at the point where the pain seems to begin, is frequently attended with immediate relief, particularly if followed up with hot anodyne fomentations, rest to the limb, and a hot brick tied to the sole of the foot. When the attack comes on in paroxysms, as it often will do, and with the periodicity of neuralgia, dry cupping, accompanied with the following powder and mixture, taken as directed, will frequently break the duration and intensity of the attack:

POWDER.—Take of carbonate of soda, 10 grs.; ginger powder, 2 grs.; quinine, 6 grs. Mix: to be taken two hours before the expected attack.

MIXTURE.—Carbonate of ammonia, 2 scrs.; Dover's powder, 2 scrs.; camphor water, 6 ozs. Mix: the fourth part to be taken half an hour before the expected attack, and two table-spoons every four hours after, till the pain is abated. Great attention must at the same time be

paid both to the state of the stomach and bowels. When the attack has been induced by damp or cold, or has become a regular visitor in cold weather, a poultice of mustard and flour may be applied for half an hour to the hip, while the following liniment is being rubbed along the course of the nerve from thigh to foot :

Take of oil of amber, ½ oz.; sweet oil, 2½ ozs.; turpentine, ½ oz.; spirits of hartsborn, ½ oz. Mix, and form an embrocation; to be used twice a day, night and morning.

If a less exciting liniment should be required, the common tincture of soap—opodeldoc—may be employed, and instead of the mixture the following sedative pills taken:

Take of muriate of morphia, 1 gr.; ginger, 5 grs.; extract of gentian enough to make into a mass. Divide into four pills; one to be taken every eight hours

In cases of chronic sciatica, however, and where all ordinary measures have failed of relief, the employment of moxa to the hip for ten or fifteen minutes, and a suppository of 6 grains of solid opium for an adult man or woman, will afford a certain if not a permanent relief. When sciatica proceeds from any derangement in the urinary system of organs, 5 drops of turpentine on a lump of sugar, taken three times a day, is often of the best effect, and will afford relief when all other remedies fail.

TYPHUS FEVER.—From the Greek *tuphos*, *stupor*. It is generally indicated by certain well-marked symptoms. It is characterized by great lethargy, prostration of muscular power, and sometimes delirium.

It commences with pain in the head, slight shiverings, vomiting, debility, sighing, loss of appetite, oppressive breathing, great mental anxiety and depression, uneasiness in the back; the pulse is quick and small, dry tongue, with a brown or black crust; urine pale, then high-colored with a bad smell, evacuations black and offensive, breath hot and offensive. The delirium becomes more constant, and at length changes to a stupor. An eruption of livid spots sometimes appears. Great purging, cold, clammy perspiration, and hiccup, precede its fatal termination.

The favorable termination of typhus is indicated by a gradual decrease of those symptoms; by the disappearance of stupor in the face of the patient, and his increasing attention to things around him; the pulse becomes moderate, the heat of the skin natural, the tongue becomes clean, etc.

TREATMENT.—If there is nausea, oppression, and sickness, give an emetic; and if the patient is chilly, give the vapor bath, and then the sudorific powder to promote perspiration, which will give much ease, and dislodge from the fauces phlegm, and other morbific matter endangering suffocation. *Observe* an emetic in the first stages of typhus is of the utmost importance, and at any time before prostration commences. It has been known to restrain the disease instantly, and in many cases to mitigate the symptoms.

If the patient is constipated, aperients must be given. But if there is a tendency to diarrhea, they must be omitted, or be administered sparingly; a small dose of rhubarb and magnesia may act as a corrective, or a single tea-spoon of castor oil.

Dr. Beach says, "In typhus, the brain and the system generally, are thrown into an unhealthy state, by an accumulation of acrid and vitiated bile, and matter collected in the stomach and first passages, caused by an inactive and torpid state of the liver. Delirium, great

heat, and prostration of strength, take place from this cause. The sympathy existing between these organs is surprising; if one is healthy so is another; if one is in a morbid condition, those that sympathize with it are also diseased. Hence the very great importance of exciting a healthy state of the stomach, liver, and the whole alimentary canal. Aperients are admirably calculated to fulfil this indication. They cleanse and stimulate at the same time; and although a patient may be very weak, he will gain strength under the administration of repeated purgatives. They may be given in moderate doses, in protracted cases, every other day. Persons in a very low or distressed state of typhus fever will soon assume a more healthy appearance after the administration of purgatives. The combination of a tonic, as a solution of quinine, with purgatives, would render them more beneficial.

A Scotch physician observes, "By oft sponging the surface of the body with cold water and vinegar, and the application of cold to the head, and bathing the feet in warm water, the discomfort and headache of the patient may be mitigated. Pain in the belly, or tenderness, in typhoid fever is best met by the use of warm fomentations."

Where there is great sensibility and swelling of the abdomen, showing an inflammatory state of the intestines, and where the stomach rejects medicines the use of injections is indicated.

The saline mixture should be given in a state of effervescence; or a table-spoon of yeast twice a day. Fixed air affords as much relief as any medicine, and has, in some instances, proved an effectual remedy, not by counteracting putrescency, but by cooling the body, abating thirst, and diminishing the morbid irritability of the system.

Let the patient drink balm and pennyroyal tea, and take the diaphoretic powder; for no medicines stand higher than those which produce perspiration; though too much sweating must not be promoted, as debility may follow. A mere moisture of the skin through the disease, must be maintained. In thirst give a tea-spoon of spirits of nitre in a weak decoction of Peruvian bark. The juice of houseleek and sugar is an excellent febrifuge. See "Houseleek." Frequently wash the body with cold or tepid, or warm water and vinegar. The salutary effects are often soon visible. Rub the body well with the flannel and liquid.

Great attention must be paid to cleanliness. The patient's face, breast, neck, etc., must be often washed, his linen often changed; there must be good ventilation, and plentiful fumigation. Sprinkle the room with vinegar, camphorated spirits, or chloride of lime. Acidulous fruits should be given, as grapes, oranges, lemons, etc. If the throat is sore, give the appropriate gargles. Should the patient sink in the advanced stages, give port wine diluted with the same quantity of water. Give a wine glass several times a day. Or a little *weak* brandy, ammonia, and water, mixed warm. If the feet are cold, put to them a bottle of hot water, wrapped in a vinegar and water cloth, and rub the surface of the body with the stimulating liniment. If signs of putrescency appear, give yeast in a little wine, adding two tea-spoons of fine powdered charcoal, and a little solution of quinine. Bottled porter may also be given. Let the patient be supported by beef-tea, gruel, etc. Should one part of the body be heated more than another, apply to the heated part a poultice of hops and vinegar, with a little tincture of cayenne.

In diarrhea, lime water is a suitable remedy; when more severe, chalk mixture with a little laudanum may be substituted; when blood appears, more decided astringent remedies are needed, as gallic acid, or

acetate of lead. In typhus fever, bed sores, by long lying, are formed. Wash the skin with rum or other spirit to prevent this. If broken, apply a healing plaster, or a poultice made of slippery elm and butter.

ULCER.—An ulcer is an injury done to the flesh from which issues matter, or some kind of discharge, with more or less pain and inflammation.

The *common ulcer* should be kept clean and cool, and protected from the atmosphere, especially in frosty or cold weather. It should be washed now and then with warm soap-water. Put upon it a little lint, wet occasionally with salt and water, and put over it the black salve. Perhaps the best dressings are the saturnine cerate, described hereafter. Poultices made of the oak bark, sumach bark, may be used alternately.

Sometimes ulcers are very irritable, tender, and painful. They discharge a thin acrid fluid. They should be steamed every night with a bitter decoction, and occasionally washed with an infusion of camomile flowers, or a strong decoction of wild cherry bark, with a little spirit. Poultice with slippery elm, mixed with a strong decoction of poplar bark, and a trifle of salt. Repeat, as required.

If the ulcer or ulcers are indolent, steam as before, and apply the cancer plaster, with only a trifle of the white vitriol mixed with it; or, sprinkle the ulcer with powdered blood-root.

Sometimes ulcers become very much inflamed, and assume a livid color; they are covered with small vesicles or blisters, as in mortification. Wash the ulcer with tincture of myrrh, and apply a poultice made of charcoal, yeast, slippery elm, ginger, and a minute portion of tincture of cayenne. Bear it as long as possible. Then apply the saturnine cerate.

The following is recommended by Dr. Beach: Take sweet clover tops and stalks, burdock leaves, and parsley, a handful of each; get the strength out by boiling; strain, and add 1 lb. of resin, and ¼ lb. of fresh butter; simmer until of a proper consistence.

A cold water cloth constantly applied is a good remedy. Put a little cerate on the ulcer previously.

Attend to the general health, by cleansing the stomach and bowels, and then giving tonics.

Saturnine Cerate.—Powdered acetate of lead, 2 drs.; white wax, 2 ozs.; olive oil, half a pint. Melt the wax in the oil, and add gradually the acetate of lead, separately rubbed down with a portion of the oil reserved for that purpose.

Ulcer.—Dry and powder a walnut leaf, and strew it on, and lay another walnut leaf on that. Or, boil walnut-tree leaves in water with a little sugar. Apply a cloth dipped in this, changing it once in two days. This has done wonders. Or, foment morning and evening with a decoction of walnut-tree leaves, and bind the leaves on. This has cured foul bones; yea, and a leprosy. Foment morning and evening with a decoction of mint; then sprinkle on it finely-powdered rue. Or, burn to ashes, but not too long, the stalks on which the red coleworts grow. Make a plaster of this and fresh butter. Change it once a day. Or, apply a poultice of boiled parsnips. This will cure even when the bone is foul.—*Wesley.*

Ulcerated Gums.—Dilute elixir of vitriol, so as to make it slightly acid, and wash the mouth frequently with it. Or wash with diluted tincture of myrrh.

Ulcerous Sores.—See "Logwood."

URINE, INVOLUNTARY.—It proceeds from weakness of the

urinary organs caused by the great use of tea and coffee, ardent spirits, etc. It is often an attendant of advanced life, especially when the habits have been irregular. It sometimes results from paralysis. It is a very troublesome complaint.

"If the patient can endure it, use the cold bath. Or, take a tea-spoon of powdered agrimony in a little water, morning and evening. Or, a quarter of a pint of alum posset every night."—*Wesley.*

Make a decoction of bayberry bark, hemlock bark, wild cherry-tree bark. Bruise them. Take a wine-glass at a time. Use at the same time the diuretic drops. Take occasionally 6 or 7 drops of laudanum in a little water. Abstain from tea and coffee, or reduce the quantity taken. Ardent spirits must be abandoned, and all liquids sparingly taken.

When it is occasioned by stone or gravel, it requires the same treatment as recommended for the latter disease. When it is the consequence of morbid irritation of the bladder, prostrate gland, or disease in the urethra, the tincture of buchu leaves in the dose of two tea-spoons two or three times a day, in a large wine-glass of the decoction of marshmallow root, is a very valuable remedy.

If incontinence of urine proceeds from paralysis, a blister must be applied to the upper part of the sacrum. Or rub the region of the bladder with tincture of cayenne, or with the anti-spasmodic tincture. Give also an injection of anti-spasmodic tincture, 1 table-spoon; warm water, ½ pt.; slippery elm, 2 tea-spoons. This course of treatment is applicable when the disease arises from nervous debility. Dr. Beach recommends the use of the tincture of cantharides in doses from 10 to 20 drops three times a day in half a cup of linseed tea. Linseed tea is an appropriate drink; add sometimes 5 or 6 drops of laudanum.

If it proceeds from obstructed perspiration, the secretion should be restored. Use the sudorific powder, or the vapor bath. Incontinence of urine may be benefited by bathing the body every morning with salt and water; and afterwards rubbing with the stimulating liniment.

Urine, Hot and Scalding.—It may arise from various causes, from inflammation of the kidneys, uterus, alcoholic drinks, luxurious diet, excessive venery, etc.

Take the juice of ground-ivy in linseed tea, with a little sweet spirits of nitre. Drink cooling and mucilaginous drinks. Let the diet be light and spare. Buttermilk is very appropriate. See "Diuretic Drops;" for this complaint they are effectual.

Urine, Bloody.—"Take twice a day copious draughts of infusion of yarrow."—*Wesley.*

It generally indicates some other disease. Give small doses of a solution of gum kino, and gum arabic, and alum, to which add from 8 to 16 drops of laudanum. The diuretic drops may be given, half a tea-spoon at a time, two or three times a day.

When blood is discharged with the urine in a plethoric habit, the use of an aperient medicine is necessary. (See "Castor Oil.") The saline purgatives are in this case inadmissible, on account of their rendering the urine more irritating. The diet should be low, unless the patient be much reduced, or the discharge of blood be the consequence of ulceration of the kidneys or bladder. In all cases, stimulants, as pepper, salt, etc., should be avoided.

When it is occasioned by the *mechanical* action of a stone in the bladder, or gravel in the kidneys or ureters, it will require the treatment recommended for those complaints. When ulceration is the

cause (which is known from its being attended with a discharge of matter), the essential oil of turpentine, in the dose of 12 drops, in marshmallow-root tea, has generally a very happy effect. The buchu leaves with gum arabic, in these affections, have also proved particularly serviceable, as the following: Take of infusion of the buchu leaves, 8 ozs.; tincture of the same, 6 drs.; mucilage of gum arabic, 3 ozs. Three table-spoons of this mixture may be taken three times a day.

Urine, Suppression of.—It may proceed from gravel. (See "Gravel.") "Drink largely of warm lemonade. Or, take a scruple of nitre every two hours. Or, a spoon of lemon-juice sweetened with syrups of violets."—*Wesley.*

Immerse the feet in warm water and soap, and drink parsley-root tea. Take half a pint of spearmint tea, to which add 3 tea-spoons of sweet spirits of nitre, and a wine-glass of Holland gin. Sweeten it with sugar or honey. Repeat, if necessary. If the disease is obstinate, steam with the vapor bath, or put the patient into a warm bath. Apply the tincture of cayenne over the bladder; and then a poultice of hops, if there is much pain. Or, give an injection of lobelia herb; slippery elm bark, and valerian; balm water, a small cup. Infuse 15 minutes. Take at the same time the diuretic drops in pennyroyal tea. An aperient may be useful. Parsley tea, spirits of mint, sweet spirits of nitre, and a little camphorated spirits, all combined, have often effected a cure.

The diuretic drops, urinary decoction, and infusions of spearmint, are very efficient. Also decoctions or infusions of white poplar bark, dandelion root, linseed, queen of the meadow, cleavers, sweet shrub, juniper berries, uva ursi, commonly called bearberry coolwort.

Urinary Decoction.—Cleavers, queen of the meadow, marshmallows, juniper berries, of each, 2 ozs. Boil in 4 qts. of water down to 1 qt. Dose.—A small cup a day.

TOOTHACHE REMEDIES.—The following are good: Oil of cloves, ½ dr.; laudanum, 2 drs.; powdered alum, 1 dr.; spirits of nitre, 2 drs.; chloroform, ½ dr. Mix. Apply with lint.

A mixture of two parts of the liquid ammonia of commerce, with one of some simple tincture, (tincture of Benjamin, etc.,) is a good remedy for toothache. A piece of lint dropped into this mixture and introduced into the carious tooth, when the nerve is immediately cauterized, and the pain stopped.

Saturate a little cotton wool with oil of cloves, and put it to the tooth. The oil of cloves might be kept ready in a bottle. It would be more efficacious if mixed with camphor, and two or three drops of chloroform. Or creosote, 1 part; spirits of wine, 10 parts; mix, and apply.

Sometimes diluted ammonia relieves the toothache. Also a mixture of camphor, laudanum, oil of cloves, and chloroform. Mix well. Or keep in the mouth warm water and salt, with one fourth of laudanum.

Take of alum, in powder, 2 drs.; spirits of nitre, 7 drs. Mix, and apply it to the teeth.

Take 3 spoons of brandy, adding to it 1 dr. of camphor, with 30 or 40 drops of laudanum. Drop a little on some lint. Apply it to the affected tooth and gum. A little tincture of cayenne would be an improvement.

Be electrified through the teeth. Or apply to the aching tooth an artificial magnet. Or lay roasted parings of turnips, as hot as may

be, behind the ear. Or lay a clove of garlic on the tooth. Or keep the feet in warm water, and rub them well with bran just before bed-time.

Alum reduced to an impalpable powder, 8 drs.; nitrous spirit of ether, 1 scr.; mix, and apply to the tooth. Or, take of compound tincture of Benjamin, and Battley's solution of opium, of each, 1 dr.; mix. A little dropped on cotton, and applied to the hollow, and the gum of a decayed tooth, will afford effectual relief.

Take of tincture of cayenne, oil of cloves, and oil of summer savory, equal parts; put into 3 table-spoons of spirit of wine; add 6 drops of chloroform. Apply to the affected tooth and gums. Apply to the face at the same time a flannel bag of hops and camomile flowers saturated with hot vinegar, and 30 drops of laudanum.

Warm water and salt kept in the mouth for some time, and renewed, is a good remedy.

Toothache, To Prevent.—Wash the mouth with cold water every morning, and rinse them after every meal. Or, rub the teeth often with tobacco ashes.—*Wesley.*

TOOTH POWDERS.—The following are recommended: Take ½ oz. of powdered gum myrrh; 1 oz. of powdered bark; 2 drs. of cream-of-tartar; 1 dr. of bole ammoniac; mix in a mortar. A constant use of this powder will cause the teeth to obtain a beautiful whiteness, and preserve them from decaying, and prevent the tooth-ache.

Peruvian bark, charcoal, armenian bole, of each, ½ oz.; powdered cinnamon, and bicarbonate of soda, of each, ¼ oz.; oil of cinnamon, 4 drops. Mix.

One to Cure a Bad Breath.—Cream-of-tartar and chalk, each, ½ oz.; myrrh, powdered charcoal, 2 drs.; powdered orris root, ½ dr.; powdered Peruvian bark, 2 drs. Mix well together. Rubbing the gums with salt occasionally destroys the animalculæ which probably cause decay and aching of the teeth.

Pounded charcoal very fine, 2 ozs.; Peruvian bark, 1 oz.; camphor, ½ oz.

Prepared chalk, orris root, and charcoal, powdered, equal parts.

Coffee newly ground fine, mixed with charcoal, is a first-rate powder. Scent as you like.

Powdered cuttle-fish, 8 ozs.; powdered charcoal, 2 ozs.; burnt alum, 1 oz.; powdered myrrh, 1 oz. Mix.

TOOTH WASHES.—Tincture of myrrh, diluted with water, and camphorated spirits. Or, a solution of borax and camphorated spirit combined.

VOMITING.—It is generally preceded by the sensation of nausea and sickness, and a disposition to faint. Endeavor to ascertain the particular condition on which it depends. If it arises from some irritating substance in the stomach, as bile, then the stomach should be thoroughly cleansed. Take a beer-glass of warm water, and about one hour afterward an effervescing draught, in which drop a very little tincture of cayenne.

The neutralizing mixture is an appropriate remedy; also the black draught, or one of the aperients.

A mustard poultice over the stomach, and 10 drops of laudanum in a little brandy and water, tend to settle the stomach.

Vomiting Blood.—The escape of blood by vomiting is carefully to be distinguished from the expectoration of blood from the lungs. If from the stomach, the blood will be dark and clotted, and mixed

with the contents of the stomach. The blood from the lungs is a bright red, often frothy and mixed with mucus. It is generally preceded by chilliness, nausea, heaviness, and pain at the stomach. It is followed by great weakness, and from that the danger chiefly arises.

The patient should be placed in bed immediately, and be perfectly quiet. Place the feet and hands in warm water, and apply mustard plasters to the calves of the legs. The following draught may be very serviceable:

Infusion of roses, 12 drs.; diluted sulphuric acid, 10 drops; syrup of roses, 1 dr.; tincture of opium, 10 drops; mix. Or, take acetate of lead, 3 grs.; purified opium, 1 gr.; extract of hemlock, 10 grs. Make 3 pills, one to be taken twice a day; drink after them iced lemon-juice and water, or vinegar and water. Use the vapor bath, if the person is cold and chilly, and afterwards apply hot bricks saturated in vinegar and water to the feet and sides. If there be constipation, give aperients, or a mild injection.

Sometimes the vomiting of blood proceeds from the retention of the menses. (See "Menses, Retention of.")

Retching.—The act of vomiting, or rather those impotent strainings when the stomach is either empty, or the amount in it too small to be ejected by the force of the abdominal muscles. As such spasmodic actions are extremely exhausting, it is always best to give the stomach something to throw up, either simple warm water, or, if a crude or poisonous substance is in the stomach, an emetic.

10 drops of laudanum, in water, will sometimes afford immediate relief; but in general, 1 or 2 half-pints of warm water will be found the best remedy for ordinary cases of dry retching.

VAPORS, OR LOW SPIRITS.—This is a state of the system popularly known by the term nervousness; and if the non-professional part of society only used it, the term might be excused, but medical men who should know better employ it too often as the name of a disease.

A late Duchess of Bedford, when at Bath, inquired what brought so many of her friends there, and being generally answered "nervousness," "the nerves," or "nervous affection," acknowledged that she came there for pleasure, and thanked God that she was born before nerves came into fashion. One object we have had in view in this work has been to show the reader the simple cause and effect of all ailments, as far as professional knowledge went, and to avoid the jargon of technicality, or the mystification of medical practice, and by laying the truth before the reader, leave to his own good sense the drawing of the proper inference; trusting that, like the Duchess of Bedford, he will be able to separate truth from cant.

Nervousness, then, is not a disease; there is, in fact, no such thing, but there is a state of physical and mental prostration or debility, the consequence most frequently of functional derangement, in which the person becomes bodily weak and mentally timid, and in which at times the imagination grows strangely perverted, the patient often believing himself converted into a glass bottle of so fragile a nature, that if abruptly handled he will break and be instantly annihilated; in some cases, again, the delusion is so strong, that the patient believes himself dead, lays out his limbs, closes his eyes, and assumes for hours, and even days, the semblance of a corpse. These and such like cases are generally called *hypochondriasis*. To undeceive such patients and effect a cure is a most difficult task. In one instance the

delusion of death was so rooted in the patient's mind, that the physician, to save him from dying in reality from inanition, had the undertaker called in, the patient put in a coffin properly prepared for the occasion, and his obstinate patient carried to the churchyard, where a poor relative, whom the supposed deceased had greatly benefited, met the procession, and so vilified the memory of his patron, that the enraged patient, who was enabled to hear every word, burst out of his coffin, and, giving chase to the ungrateful detractor, ran till from exhaustion he fell to the ground, when he was taken home, put to bed, and in a few hours was perfectly recovered—the powerful circulation of the blood, the mental excitement, and the perspiration consequent on the exertion of the chase, having effected a cure.

For the cases where patients fancy themselves dumb waiters, tables, teapots, or to have lost their legs, it is impossible to lay down any rule of medical conduct; the particular features of the case must suggest their own remedy.

We shall consequently return to the more ordinary form in which we find vapors, and commence with the usual—

SYMPTOMS, which begin with languor, oppressed breathing, a sense of heat at the stomach, listlessness, indifference, and want of energy to perform the most trivial duty, a melancholy sadness, and distressing forebodings of future events, with great fear and apprehension of personal danger from the most unreal causes, and so firm an opinion that his own view of things relating to himself is true, and must be realized, that no argument on the part of the physician can undeceive the patient's mind.

The CAUSES of this mental depression and physical weakness are almost always functional, and proceed from *dyspepsia*, biliary disturbance, enlarged liver, etc., each cause acting on a naturally melancholic temperament. The great fear in this disease is the probability of the case degenerating into confirmed *melancholia*, or melancholy madness.

The TREATMENT indicated is first to restore energy to the brain and nervous system, and then to remove the dyspepsia or the functional causes. The first is to be effected by change of scene, fresh society, and amusements, or by any means that will divert the patient's mind from his own case and imagined sufferings, by rural sports, moderate exercise, gaining his confidence, and condoling, but never by ridiculing his feelings or foibles, and finally by persuasive arguments, inducing him to attempt the measures suggested; only a portion of the scheme of treatment proposed being told to him at once. This is by far the most important, and also the most difficult part of the cure. The second, or medical treatment, lies in giving tonics of quinine and iron, and anti-spasmodics, as those of camphor, valerian, opium, ether, etc.; mild aperients, and the occasional use of the tepid and cold bath; and in a carefully arranged dietary, the amount of wine or stimulants being regulated by the condition of the patient.

Where great debility, with a disinclination for all solid food, is experienced, a table spoon of the cordial medicine known as the compound tincture of cardamoms of the Edinburgh Pharmacopœia, taken about eleven o'clock in the forenoon, an hour before dinner, and again in the evening, will frequently act most successfully as a stimulant and stomachic. In cases where there is both apathy for food with indigestion, and great nervous depression, a tea-spoon of Gregory's powder in a little peppermint water, two or three times a day, with a dose of the following mixture, will often be found highly beneficial, especially if assisted by an assafœtida pill at bed-time every third night:

Take of carbonate of ammonia, 1 scr.; camphor water, 4½ ozs.; compound tincture of valerian, 4 drs.; paregoric, 1 oz.; tincture of lavender, 2 drs.; compound spirits of ether, 2 drs.; mix. One table-spoon to be taken every four hours, or 2 table-spoons twice a day.

WHITE SWELLING.—This is a very painful disease; it more frequently affects the knee than any other joint; sometimes the hip, ankle, and elbow. At first a severe pain is felt penetrating the joint, or only one particular part of the joint. The least motion aggravates the pain. It soon begins to swell considerably, and suppuration takes place. Matter is discharged from several openings or ulcers, the bones are affected; and if the disease is not arrested, the life of the patient is endangered.

TREATMENT.—Avoid the old system of treatment by the allopathic doctors, by mercury, blistering, setons, amputation, etc. Attend to the stomach and bowels, giving an emetic, and an aperient, if needed; to be followed by bitter tonics occasionally, giving the alterative syrup, diluted when first taken; or a decoction of sarsaparilla, sassafras, guiacum, queen's delight, unicorn root, cleavers, prickly ash berries, of each, 1 oz. Simmer in a covered pan with two quarts of water down to three pints. Sweeten. A dessert-spoon three or four times a day. Steam the part with bitter herbs, and now and then give the vapor bath to the whole body. After steaming the affected part, rub the limb with the rheumatic liniment.

Dr. Beach recommends the following: "Oil of hemlock, oil of sassafras, gum camphor, tincture of opium, ½ oz. each, and 1 pt. of spirit of wine. When dissolved and properly mixed, bathe the part with it frequently." Then apply an oatmeal and bran poultice, mixed with a little finely powdered charcoal, salt, and cayenne pepper. If the pain is great, sprinkle on the poultice ¼ oz. of laudanum. Keep it on as long as possible, and then steam.

White Swelling.—The pain arising from white swellings, and other similar swellings, may be instantly eased thus: Take the white of an egg, and beat it up with two table-spoons of spring water; rub the part affected frequently, but gently, with the finger.

White Swellings.—Hold the part half an hour every morning under a pump or cock. This cures all pains in the joints. It seldom fails. Tried. Or, pour on it daily a stream of warm water. Or, a stream of cold water one day, and warm the next, and so on by turns. Use these remedies at first, if possible. It is likewise proper to intermix gentle purges, to prevent a relapse. Or, boiled nettles.—*Wesley.*

WORMS.—The worms found in the human body are mostly the *ascarides*, the thread-worm, infesting the lower intestine, causing much itching and irritation about the anus. The *teres*, or long round worm, generally seated in the small intestines, and stomach.

The symptoms denoting the existence of worms are common to the different species, viz., indigestion, with a variable appetite; foul tongue; offensive breath; hard, full, and tense belly, with occasional gripings and pains about the navel; heat and itching sensation in the rectum and about the anus; the eyes heavy and dull; itching of the nose; short, dry cough; grinding of the teeth; and starting during sleep, attended often with a slow fever.

The indications of cure are, first, to clear the stomach and intestines of redundant slime, and afterwards to strengthen the stomach and bowels, so as to destroy the disposition to their generation.

Give an emetic once or twice a week, in order to rid the stomach of impurities, slime, and morbific matter, the cause of worms. Attend

to the state of the bowels, for they are often irregular through worms. A dose of the composition powder given night and morning, and bitter tonics during the day, will be of essential service. This should be continued a week or two.

Lime-water being capable of dissolving the mucus in which the worms breed, may be taken; a tea-cup two or three times a day—less for a child. Take with it the tonic mixture, or bitters. It is very effectual in relieving children.

The following infusion is valuable: Best senna, Caroline pink-root, manna, worm-seed, rhubarb, ½ oz. of each. Bruise them, and infuse for two or three hours in boiling water. Sweeten with molasses. Give to a child six years old 3 table-spoons a day.

Sweets should be avoided. Salt and water taken in the morning will expel worms, especially the seat worms. It may be made by dissolving a table-spoon of salt in half a pint of water. It may also form an injection to bring away the ascarides. Camphor is another remedy. Dissolve 10 grs. in a little spirit of wine, and add it now and then to the tonic bitters.

Worms, Various Remedies for the Cure of.—Take 1 oz. of tin, finely powdered, and 2 drs. of Ethiop's mineral, mixed together; divide it into 6 powders, and take 1 of them, in a little syrup, twice a day; when they are used, work them off with a little rhubarb. Or—

Jalap, ¼ oz.; powdered rhubarb, ¼ oz.; gamboge, 2 drs.; syrup of bear's-foot, sufficient to make it into a paste; then make it into ordinary sized lozenges. DOSE.—For a child three years old, ½ a lozenge; six years, 1 lozenge; and so on, according to years. Or—

Spirits of turpentine, in doses of from 8 drops to 1 tea-spoon, in gruel sweetened. Or—

Cowhage mixed with molasses. Give a child 1 tea-spoon fasting for three or four mornings successively—an adult 1 table-spoon. Then give a purge.

Powdered rust of iron is a good vermifuge. It expels the worms and strengthens the constitution. To a child six years old from 10 to 40 grs. may be given. An adult may take ¼ oz. It may be given in molasses or in beer. Dr. Rush says: "Of all the worm medicines that I have given, I know none more safe and certain than this simple preparation of iron." It should always be followed by an aperient.

The common male fern-root is a certain remedy for the *tape*-worm. Two or 3 drs. of the powdered root to be taken in the morning, no supper having been taken the night before. It generally sickens a little. A brisk purgative is to be given a few hours after, which sometimes brings off the worm entire; if not, the same course must be followed at due intervals. For the success of this remedy, the root should be recently gathered, as after being kept long in the shops its activity is diminished or destroyed.

Worms.—Take 2 tea-spoons of brandy, sweetened with loaf sugar, every morning. Or, 1 spoon of the juice of lemons.

Or, take 2 tea-spoons of worm-seed mixed with molasses, for six mornings. Or, 1, 2, or 3 drs. of powdered fern-root boiled in mead. This kills both the flat and round worms. Repeat the medicine from time to time.—*Wesley.*

Worm Fever.—Boil a handful of rue and wormwood in water; foment the belly with the decoction, and apply the boiled herbs as a poultice; repeat the application night and morning. This frequently brings away worms from children who will take no internal medicine, and is likewise serviceable if the fever be of the putrid kind.—*Wesley.*

Worm Seeds.—The seeds of this American plant form a powerful vermifuge. It speedily expels round and other worms from the intestines. The seeds are given in substance from 10 grains, or half a drachm, finely powdered, strewed on bread and butter, or made into an electuary with honey or molasses. After using some days, give an aperient, and the tonic bitters.

In this country they use the oil also. Five to ten drops of the oil mixed with sugar, are a common dose for a child. Or, twelve drops for an adult.

Worm Syrup.—Senna, Carolina pink, of each. 1 oz.; peach leaves, male fern, of each, ½ oz.; kousso, 1½ ozs. Powder, and add a cup of pure water, near boiling; shake up in a bottle for a day; then add a cup of spirit of wine. Shake up several times a day for a week, keeping the bottle in a warm place. Then add another cup of hot water in which has previously been infused half a tea-spoon of cayenne pepper. This recipe is valuable. It will cause all kinds of worms to flee before it. DOSE.—For a child six years old, 1 tea-spoon four times a day. It may be given in well sweetened coffee.

WOUNDS.—Apply juice or powder of yarrow. Or, leaves of ground-ivy upon it. Or, wood-betony bruised. This quickly heals even cut veins and sinews, and draws out thorns or splinters.—*Wesley.*

Wounds—To Prevent from Mortifying.—Sprinkle sugar upon them, or powdered blood-root.

Wounds—Putrid.—Wash them morning and evening with warm decoction of agrimony. If they heal too soon, and a matter gathers underneath, apply a poultice of the leaves pounded, changing them once a day till well. Or, apply a carrot poultice; but if a gangrene comes on, apply a wheat flour poultice (after it has been by the fire till it begins to ferment) nearly cold. It will not fail.

Wounds—To Staunch the Bleeding of.—Where it can be done, take a bandage, handkerchief, or garter, and put it round the limb betwixt the wound and the heart, and tie it tight. It will answer the purpose of a tourniquet, and stop the bleeding till effectual relief can be given. In many cases, it might save life.

Or, take a pledget of lint, and form it into a little ball, and press it upon the mouth of any bleeding vein or artery. Apply lint and small compresses saturated with salt and water, and bind them on the wound, to suppress the bleeding.

In dressing, bring the lips of the wound together, and keep them so by means of adhesive plaster, compresses, and a bandage. Wounds thus dressed may heal without suppuration. Frequently wet the dressings with diluted brandy and salt. Let the dressings remain two or three days. If suppuration takes place, remove the adhesive plaster, etc., and apply a bread poultice, or the slippery elm bark poultice; afterwards apply the salve or plaster. In case of proud flesh appearing, sprinkle sugar, or powdered bloodroot upon the wound; or apply as a lotion the *diluted* solution of chloride of soda, or chloride of lime—that is, in proportion of 1 oz. of the solution to a pint of water. Or, use a few grains of the vegetable caustic.

YARROW.—This plant is well kown. The infusion taken inwardly, and applied outwardly as a wash, is good for piles, and sores. It is excellent for flux, looseness, and nervous melancholy. The powder is recommended for colic, ague, whites; and it is very useful in colds. It restrains the involuntary discharge of urine in children.

YELLOW FEVER.—The first stage usually begins with weariness, chilly fits, faintness, giddiness, flushing of the face, redness of the eyes,

pain in the eye-balls, forehead, back, great weakness, anxiety, thirst and lethargy. The urine is high colored, deficient, and turbid. The tongue is covered with a dark fur; the perspiration is irregular, interrupted and lessened; the bile is secreted in unusual quantities, and speedily ejected from the stomach. The skin is very dry, hot, and hard. The eyes, face, and breast become *yellow.*

This stage of the disease lasts about 48 hours. The symptoms begin to abate, by which the patient is flattered; but returning aggravated symptoms soon undeceive him. He becomes very debilitated; putrefaction takes place; large patches of livid spots appear on different parts of the body; the tongue becomes dry and black; black fur on the teeth, and oft blood from the mouth, nose, nostrils, etc. The whole body often exhibits a livid yellow.

The *causes* may be contagion, the use of ardent spirits, marbleizing the liver, destroying digestion, etc. It may be caused by cold, wet feet and clothes, obstructing perspiration, etc.

TREATMENT.—The first object must be to excite action in the stomach, bowels, liver, and skin. Give an emetic; clear the bowels by a brisk purgative. Give the diaphoretic powder, and place the patient in the vapor bath, regulating the heat according to the strength of the patient. While in the bath let the patient drink balm, pennyroyal, or catnip tea. When he comes out of the bath, place him in a warm bed, well covered with blankets to produce perspiration. If he perspires, gradually lessen the covering.

If vomiting prevails, give the neutralizing mixture, a table-spoon every half hour till the vomiting ceases. If the stomach be very irritable, give with the neutralizing mixture a drachm of Epsom salts to each dose, in a little tea; if the vomiting does not abate, persevere with the medicine, and apply mustard plasters to the stomach and feet twice a day. Do not neglect aperients; for it is of the highest importance to promote the natural evacuations.

Attend also to the skin. If dry, hot, and parched, give an infusion of boneset, to be drank freely, to promote perspiration. If this should fail, give the Sudorific Powder, or the Sweating Drops till perspiration takes place. Should they cause too much sickness, give lemonade or cream-of-tartar water. In the West Indies they affect a cure by drinking an infusion of boneset, by using the warm or vapor bath, and bathing the body with lemon juice with water, or warm vinegar and water.

WARTS.—These may be cured by daily touching the top with the pure tincture of Rhus Toxicodendron or Poison Oak, which grows in this country. It is sold by homepathic chemists. The application should be continued for a few weeks. Or, touch them frequently with blue vitriol; or, nitric acid; or, chloride of zinc. A bit of impure potass moistened should be applied to the warts a few minutes, so as to leave a whitish paste upon them; put over it a sticking plaster for a week. Repeat if needed.

Warts.—Rub them daily with a radish, or with the juice of marigold flowers—it will hardly fail. Or, water in which sal-ammoniac is dissolved. Or, apply bruised purslain as a poultice, changing it twice a day. It cures it in seven or eight days.—*Wesley.*

Or, steep in vinegar and salt the rind of a lemon, and apply it to the wart, first the outer side and then the inner. Keep it on for two hours and change. Or, rub the wart now and then with elixir of vitriol, apply with a bit of wood.

Warts, Cure of.—One of the surgeons of St. Bartholomew's Hos-

pital says, "The easiest way to get rid of warts is to pare off the thickened skin which covers the prominent wart; cut it off by successive layers; shave it till you come to the surface of the skin, and till you draw blood in two or three places; when you have thus denuded the surface of the skin, rub the part thoroughly with lunar caustic, and one operation of this kind will generally destroy the wart; if not, you cut off the black spot which has been occasioned by the caustic and apply it again; or, you may apply acetic acid and thus you will get rid of it.

BED SORES.—The white of an egg beaten to a strong froth; then drop in gradually, while you are beating, two table-spoons of spirits of wine; put it into a bottle, and apply occasionally with a feather. Soap Plaster, sold by the druggists, protects the affected part from friction or rubbing.

DANDRUFF, OR PITYRIASIS.—A genus of scaly disease, chiefly affecting the scalp, characterized by irregular patches of small scales, which repeatedly exfoliate or fall off, but never form crusts.

There are two or three varieties of this disease, named after the color of the exfoliated skin; some confined to the scalp, others to the armpits, chest, and the lower part of the abdomen. This, like many minor affections of the cuticle, only becomes hurtful to health by neglect; for when the dead, bran-like scurf is left on the skin, particularly at the roots of the hair, it impedes perspiration, and by blocking up the pores of the skin, becomes extremely hurtful.

TREATMENT.—When in the scalp, the head should be well stimulated night and morning by means of a strong hair-brush, and the free use of a large and small toothed comb, and the occasional employment of a lotion composed of 2 drachms of borax, dissolved in a pint of rosemary water, applied three times a week.

Should this fail to cure the evil, an ointment, composed of 1 ounce of white create mixed with ½ a drachm of creosote, is to be rubbed into the roots of the hair every night for a week; at the expiration of which time the person should have the head thoroughly washed with soap and water, take a hot bath, bathe the head with the rosemary and borax, and with a clean brush the next day remove any exfoliation which may have been thrown out.

SCURF IN THE HEAD—A Simple and Effectual Remedy.—Into a pint of water drop a lump of fresh quicklime, the size of a walnut; let it stand all night, then pour the water off clear from sediment or deposit, add a quarter of a pint of the best vinegar, and wash the head with the mixture. Perfectly harmless; only wet the roots of the hair.

WATER BRASH.—A discharge of thin watery fluid from the stomach upwards to the mouth. It generally arises from weakness of the stomach, indigestion, etc. Persons affected with diseases of the chest, and persons of debilitated constitution, are much subject to it.

Take from 4 to 8 grains of the white oxide of bismuth. Give an aperient pill to keep the bowels open, and give bitters freely. Take nourishing diet, and be frequently in the open air. Take now and then some of the Neutralizing Mixture diluted. A little brandy bitters, and effervescing draughts are beneficial. Use friction with the flesh brush. If the patient is consumptive, then most gentle means must be used, and chiefly in reference to the disease which is the cause of the water brash.

VAPOR BATH.—Sit naked upon a chair; place the legs upon a stool. Place a vessel under the chair. Throw a large blanket around the patient and the chair; pin it under his chin, and make it tight all

round. The vessel is to contain the liquid, hot water, or decoction of bitter herbs, or otherwise medicated. Heat a couple of bricks nearly red hot, and put one of them into the vessel under the chair. Then pour about three pints of boiling water into the vessel, with a gill of strong vinegar. Be careful not to pour it upon the brick, but down the sides of the vessel. Close up, and the patient will soon be immersed in vapor. Change the brick when cool. If the patient be too hot, lift up the blanket a little to admit the cold air, which will lower the temperature. During the bath, drink freely of the balm, catnip, or pennyroyal tea. When out, dry well, and apply friction, with a flesh brush, or with rough towels dipped in vinegar and water.

The benefits arising from the vapor bath are immense.

WEN—To Cure.—Take a lime-stone and slake it in soap lees; then mix it with a little soap. Spread it as a plaster, and apply it to the wen, and often anoint it with the lees in which the lime was slaked. It will sink and destroy the wen.

WIND IN THE STOMACH.—See "Flatulency."—Take oil of juniper, tincture of myrrh, lavender water, sweet nitre, equal quantity of each; shake them in a bottle. DOSE.—One tea-spoon in a cup of cold water. The above is a dose for an adult. Or, take a large hand ful of feverfew, and cummin seeds and ginger, 1 oz. of each to 3 quarts of water; boil to 3 pints. Add a little tincture of cayenne. DOSE.—three or four wine glasses a day.

PROUD FLESH.—A popular name given to those watery granulations which spring up suddenly in cicatrizing wounds, or granulating surfaces, giving the ulcer or wound an uneven, weak, and florid appearance. These excessive granulations, as surgeons call them, are red, flabby elevations that spring up, sometimes round the edge of the ulcerated surface, or in its center, in circumscribed patches, or separate cones or elevations, and are indicative of a rapid but weak action in the part; they are in themselves perfectly harmless, though, according to popular belief, the presence is regarded as indicative of serious mischief, if not of danger. A lotion of sulphate of zinc, or bluestone, in the proportion of 2 or 3 grains to the ounce of water, if applied on lint once or twice will generally reduce such exuberant growths, at the same time that it stimulates the vessels of the parts to a more equal and steady action. Should the lotions above not answer the purpose, a small quantity of burnt alum may be scattered over the granulations or a thin spreading of the red precipitate ointment, or a drachm of citron ointment (ointment of the nitrate of mercury), with 3 drachms of red precipitate, may be mixed and applied in the same way; but ointments should be avoided to wounds as much as possible, and lotions, but stronger than the above, used instead. When the system is weak, and the diseased surface large, wine and tonics should be given to the patient, and in extreme cases caustic is to be used, but this is only when the granulations become of a fungoid character.

NOCTURNAL EMISSIONS.—An involuntary seminal discharge, occurring during sleep, generally the result of excited dreams, and often caused by dissipated habits and a relaxed system. This exhausting complaint is generally confined to the young, and, when not the result of vice, may be easily overcome by a course of tonics, local and general, such as the following: 1st, cold salt water bathing, or else sponging the body, especially the loins and hips, every morning with cold vinegar and water, with the after use of the flesh brush; 2d, a grain of quinine made into a pill, taken twice a day, and 20 drops of the tincture of iron (*tinctura muriatis ferri*) in a cup of barley water

three times a day; and 3d, by taking 20 drops of laudanum on going to bed, when the case demands it.

SINKING, OR EXHAUSTION AT THE PIT OF THE STOMACH.—A popular mode of expressing a nervous sensation; a sudden loss of power or strength—a collapse of the stomach—as if the food and vitality of the organ had been in a moment taken away. Such sensations of sudden exhaustion are purely nervous, and indicate an impaired digestion. 30 drops of sal-volatile in half a wine glass of camphor water will generally relieve the sense of exhaustion for the time being; but should it recur frequently, a powder containing 2 grains of columba, 2 grains of ginger, and 10 grains of bicarbonate of soda, twice a day, will correct the state of the stomach which induces the sinking feeling; or half a tea-spoon of Gregory's powder in a little peppermint water may be taken for the same purpose.

SMOKING.—This vice—for, carried to the extent that it now is, it is truly one—in which even boys indulge with the freedom and abandonment of men, is an evil that cannot be too severely reprobated, for it must be evident to the dullest comprehension that the constant absorption, however minute the quantity, of the fumes of a deadly drug, cannot be daily persisted in without injury to the system. A pipe of tobacco, or a cigar, once or twice a day, if it causes no salivation, or the smoker abstains from expectoration, may possibly be indulged in with impunity; but when the salivary glands are greatly excited, and the person accustoms himself to expectorate while smoking, the practice must be regarded as extremely objectionable and dangerous. The system, in the first place, is deprived of a large amount of the natural solvent of the food; digestion is greatly impaired in consequence; less chyle extracted from the aliment taken, and the blood impoverished by receiving less than its due proportion of healthy nutriment. Hollow cheeks, and emaciated body, impaired digestion, a languid appetite, and a listless state of mind, are the certain consequences resulting from an over indulgence in the practice of smoking, accompanied with excessive expectoration. Smokers should in all cases avoid using short or dirty pipes, as the rank oil given off from the burning tobacco, by irritating cracks or sores on the lips, very often induces a *scirrhus* or cancer of the lower lip; besides this danger, such a custom taints the breath most offensively.

ABORTION.—A separation from the womb, and a coming away of the child, before the proper period for its expulsion, and when it is impossible for it to live when born.

Abortion can only occur before the *sixth month* of pregnancy: after that period and up to the eighth month it is called a *miscarriage*, and any time between the eighth and ninth months a *premature* labor.

Women of all conditions of life, and at all ages, are subject to abortion, though it is much more frequent with those living in cities than in villages—among the weak and delicate than the robust and vigorous, and more prevalent in young mothers than in those who have had several children. The *causes* that produce abortion are very numerous; sometimes they proceed from a natural weakness of the constitution, the system seeming unable to carry on the new action unless assisted by art and medicine. Over-fatigue, sitting long in a heated room, dancing, sudden emotions of the mind, such as grief or terror, falls, blows, or kicks, are all occasionally the immediate cause of this mishap; but by far the most frequent reason is a false step, a sudden jar to the body, jumping from a chair, straining to lift heavy weight, turning a bed, or attempting to reach an article beyond a per-

son's height, or from a violent fit of coughing. There are other causes, but those may be imagined from what have been already described.

Abortion may occur at the end of the fourth week of pregnancy, at the end of the second and third months, the fifth and the sixth; but the two most frequent periods are between the *seventh* and *twelfth weeks*, and at the sixth month.

SYMPTOMS.—When the death of the child—or *fœtus*, as it is called before birth—is the cause of the abortion, the fact is indicated by the soft and flabby state of the breasts, a sense of weight and coldness at the bottom of the belly, attended with occasional shivering, pains in the back and loins, and, after a time, by a bearing down pressure that comes on and goes off at regular periods and intermissions, till the coming on of the proper expulsive pains. Where the cause has been sudden, the first symptoms are generally pains in the back, weight in the bottom of the abdomen, langor, great depression of spirits, shivering, and occasionally fainting. These are followed, after a longer or shorter time, by a discharge of blood, sometimes only trifling, at others excessive and in alarming quantity, accompanied by sharp flying pains along the back and over the belly; these pains gradually increase in strength and duration, till they assume all the characters of regular labor pains, which continue till the child or the embryo is expelled. (See "Labor.") As women who have once had an abortion are particularly liable to suffer a repetition of the same misfortune, and at the *same period*, particular care must be taken in the next pregnancy, especially till the woman has passed the period of the first mishap, to protect her from any injury or circumstance which might cause a repetition of the accident; for there is no casualty to which a female is liable, that produces a more serious and depressing influence on the system, than that of abortion; and should it occur with a *first child*, it may be repeated for several years, unless most skilfully guarded against.

TREATMENT.—The first object to be considered, in cases of expected abortion, is to arrest the progress if begun, and, if possible, secure the continuance of the pregnancy. For this purpose the earliest symptoms are to be attended to, and these are, pains in the back and loins, sometimes extending over the front of the belly, accompanied with a general heat and irritability of the body, with a frequent desire to empty the bladder, and a slight evidence of blood, or *show*.

In cases of this nature, and before the separation of the child from the womb has been effected, and while there is yet a chance of preventing the abortion, the patient is to be placed on her back, in bed, and kept perfectly calm and still, the legs slightly raised, so as to relax the muscles of the abdomen, and napkins, wrung out of cold water or cold vinegar and water, applied frequently over the belly. An effervescing draught, made by dissolving twenty grains of carbonate of soda in the third of a tumbler of water, and adding fifteen grains of tartaric acid, is to be given every one or two hours, and followed the next day by a small quantity or castor oil.

All rich and stimulating foods and drinks are to be prohibited, and every noise or excitement carefully guarded against. In young and robust constitutions, and when the pulse is quick and full, from six to nine leeches should be applied over the womb, and in addition to the effervescing draughts, a seidlitz powder taken once or twice, to act more fully on the bowels. By these means, keeping the body cool and quiet, and the mind tranquil, the threatened danger, by a week or two's rest, may be got over, and nature thus assisted resume its functions, and the pregnancy proceed to a happy termination.

When, however, from the symptoms already given, there is reason to believe the child is dead, the patient is to be kept perfectly tranquil and on her back, bottles of hot water are to be placed to the feet, and a napkin, folded into a large square, and wrung out of cold vinegar and water, applied to the abdomen so as to cover it, while another made smaller is applied to the lower parts; these being at once removed, wetted, and reapplied, as soon as they become warm. A few spoons of gruel, with a little brandy, are to be given from time to time, according to the weakness or exhaustion of the patient.

Should the amount of blood discharged be moderate, the above application will be found generally sufficient to arrest it entirely, or till nature expels the child and its membranes, by a few of the ordinary pains of childbirth; but if the amount of blood be large, and if there be an absence of all expulsive pains, a silk handkerchief should be at once wetted with sweet oil, or in the absence of that, smeared with lard, and then piece by piece cautiously passed into the birth, and then, as already directed, the cold vinegar and water is to be applied to the abdomen. The object of this plug, as it is called, is to cause the blood to coagulate internally, and so stop the further bleeding from the womb, till the proper pains set in, and the contraction of the muscles of the abdomen shows that the expulsive efforts have commenced, when the handkerchief must be withdrawn to give room for the passage of the child and membranes.

The afterbirth does not always descend at the same time; but as it is of the utmost importance that it should be expelled as soon as possible with safety, a gentle pressure on the abdomen with the hand, or friction over the belly, will, in most cases, excite the womb to contraction, and thus throw out the afterbirth. It must be remembered that all the time the womb is open, the patient is in danger of excessive bleeding, or what is called *flooding;* and when this comes away in gushes, unattended by the necessary pains, it becomes of the utmost importance to empty the womb at once, and by the most expeditious means. For this purpose, a drachm of the bruised *ergot of rye* must be simmered for ten minutes, in about a quart of water, to which a few grains of soda are added; the liquor is then to be strained, and a wine glass, with a little sugar, and a tea-spoon of brandy, given as soon as cool enough to drink.

Fainting sometimes occurs from the loss of blood, when small doses of cordial must be given. or a little brandy and water, with twenty drops of sal-volatile, and ten drops of ether in each dose; but these must not be too frequently or incautiously administered, the object being merely to rouse, and not to excite the patient. During the continuance of the bleeding, the room must be kept cool, cool air freely allowed to circulate round the patient, and frequent draughts of lemonade or acidulated waters, given to her for drink. When the abortion takes place early in the pregnancy, and before the child is distinctly formed, all the clots of blood discharged should be carefully, examined in the hope of finding the embryo, as on the discovery of that, the subsequent treatment depends. In cases of malformation, and where, in consequence of the confined dimensions of the pelvis, or bones of the hips, a fully developed child could not be born alive, it becomes the duty of the surgeon to produce abortion, for the safety of the mother, the time at which that operation is to be effected depending on the capability of the parts.

Procuring or causing abortion, either by drugs purposely taken, by means directly applied, or by blows, violence, or force, resulting in

the death and abortion of the child, was formerly punished with *death*, though by the common law it is now classed only as a felony.

Abortion—To Prevent.—Women of a weak or relaxed habit should use solid food, avoiding great quantities of tea and other weak and watery liquors. They should go soon to bed and rise early, and take frequent exercise, but avoid being over-fatigued.

If of a full habit, they ought to use a spare diet, and chiefly of the vegetable kind, avoiding strong liquors, and everything that may tend to heat the body, or increase the quantity of blood.

In the first place, take daily half a pint of decoction of Lignum Guiacum; boiling an ounce of it in a quart of water for five minutes.

In the latter case, give half a drachm of powdered nitre in a cup of water-gruel, every five or six hours; in both cases she should sleep on a hard mattress, with her head low, and be kept cool and quiet.

ABSCESS.—They require the application of warm poultices and fomentations, and a cooling aperient medicine. The best fomentation comprises a decoction of marsh mallows, camomile flowers, poppy-heads, or hemlock leaves. The poultice may be made of bread and water, or linseed meal. These to be applied till the abscess bursts When burst, allow the discharge of purulent matter, and after it has ceased, apply moist rags for a day or two; then draw together the edges of the wound by means of diachylon plaster, and to the wound apply Cerate or Spermaceti Ointment. It is necessary sometimes when the bursting is slow and tedious, and the pain great, to open the abscess with the point of a lancet, which prevents much suffering. When the abscess is indolent, and slow in ripening, apply a poultice of oat meal, and water, and yeast, and a little salt. Let the patient live on nourishing diet. Keep the body open; and if the pain be great, mix with the aperient, about 10 or 12 drops of laudanum.

Abscess—Milk.—This abscess affects mothers, and requires careful treatment. Apply every two hours warm vinegar to the part. This, if done in time, soon gives relief.

AFTER-BIRTH.—The *placenta*, or cake. That membrane which in the fœtal life, or the unborn child, is the medium of communication between the parent and the embryo and growing child. It derives its name of after-birth from the fact that in all natural labor it is never expelled till some minutes after the birth of the child, and forms the last operation in the third stage of all labors. Sometimes it is retained in the womb long after the expulsion of the infant, from *atony*, or loss of contractile power in the womb to throw it off; in which case the skin of the abdomen must be taken up in the hand, and, by a rotary pressure over the organ beneath, induce it to contract and rid itself of the adhering placenta. Occasionally, from causes to be hereafter explained under "Labor," the womb is thrown into irregular and spasmodic contractions, by which it is drawn together in one, or even two places, like an hour-glass, either shutting up the after-birth in one or other of the cavities formed, or contracting upon it, holding it as in a vice. (See "Womb," "Abortion," and "Labor.") In such cases, the spasmodic contractions have to be overcome, and the after-birth brought away; for till it be removed, and the womb naturally closed, the patient is in great danger of sudden *hemorrhage*. For mode of operation, and the time necessary to elapse from the birth of the child till the after-birth should be taken away, see "Labor."

AFTER-PAINS.—These are a repetition of the pains of child-birth, but only much less intense, and to which all women are subject, more or less, for the first week after confinement. In general,

however, they seldom extend beyond the fourth day, and only recur now and then, seldom lasting more than a few minutes at a time. A peculiarity attending after-pains is the fact that they increase in severity and duration with the number of children a woman has borne; as if the womb had each time more difficulty in recovering its original size and appearance.

After-pains need cause no alarm, and it is only when excessive that they require any medical assistance, as the cause generally brings its own relief.

CAUSE.—Though the womb contracts immediately on the expulsion of the after-birth, it does not recover its natural size for several days—indeed, weeks. In the cavity left, the blood, exuding from the vessels of the womb, collects and coagulates into clots; to expel these through the narrow mouth of the womb causes a certain amount of muscular contraction of the organ, which contraction induces those grinding sensations called after-pains, and according to the size of the clot to be expelled is the severity and duration of the pain, which ceases when the obstruction has passed.

TREATMENT.—When the discharge is considerable, and there are many clots, the pains continue sometimes for hours without any lengthened abatement; in such case, as they produce a good deal of harassment to the patient, the abdomen should be fomented by napkins wrung out of hot water, the application of a bottle of hot water to the bottom of the belly, and the exhibition of 20 or 25 drops of laudanum, in half a cup of gruel. Sometimes after-pains are kept up by a costive state of the bowels, not properly relieved before the confinement; in such cases, a dose of castor oil should be given on the second day, or an enema of warm gruel, with 1 oz. of castor oil, and 3 drs. of turpentine.

After-pains can always be distinguished from inflammation, and the disease known as *puerperal fever*, or childbed fever, by the pains coming on in fits of longer or shorter duration, with intervals of perfect ease; by the absence of all tenderness of the abdomen when pressed, and by a discharge of coagulated blood.

BREAST, INFLAMMATION OF.—The breasts of females are sometimes inflamed, swelled, and subject to abscesses. In mothers these affections are painful, and prevent the flow of milk. A swelling in the breast may be reduced by applying the bitter-sweet ointment, and the adhesive strengthening plaster. If there be chill, it must be removed by perspiration. For this purpose take the sudorific powder. Also, take 1 tea-spoon of best rum, 1 tea-spoon of ginger, ¼ tea-spoon of cayenne pepper; boil four or five minutes, and thicken with coarse flour, or ground elm bark, or slippery elm; put a little oil upon the breast, then apply the poultice, and repeat three or four times. It generally cures. If the pain be excessive, add a small quantity of laudanum to the poultice. This generally cures.

In hard swellings of the breast, rub with sweet oil, or friction with soap liniment; 1 dr. of compound tincture of iodine to each ounce will render it more effectual. The bowels should be kept gently open, to subdue the fever.

When matter has formed, it is best to let it break and discharge spontaneously; or it may be punctured with a lancet. An abscess in the breast will discharge a long time. The diet therefore should be nutritious, light and strengthening. A warm bread poultice is good for an abscess; it should be changed every four or five hours, and covered with oiled silk. When the discharge has nearly ceased, simple

warm water dressings may be substituted, and then apply the black salve, (which see.)

Breasts, Hard.—Apply turnips roasted till soft, mashed and mixed with a little oil of roses. Change twice a day, keeping the breast warm with flannel.

Breasts, Sore and Swelled.—Boil a handful of camomile, and as much mallows in milk and water. Foment with it between two flannels, as hot as can be borne, every twelve hours. This also dissolves any knot or swelling in any part.—*Wesley.*

BREATH, FETID.—The smell may proceed from the lungs or the stomach, but in nine cases out of ten it originates in the stomach, and the following is a simple and prompt remedy: Three hours after a meal take a large tea-spoon of a solution of 6 parts of chlorate of potash in 120 parts of sugared water, and at the same time rinse out the mouth well with the same solution. When the breath is tainted with onions, eat parsley and vinegar, or orris root, or gum kino.

Or, take a dose of rhubarb and magnesia occasionally; finely powdered charcoal has been recommended; also a decoction of camomile and wormwood. For impure breath caused by decaying teeth, chew orris root, and Peruvian bark, or use the same as a powder. Or take charcoal powder, powdered myrrh, powdered cuttle-fish, carbonate of soda, and a drop or two of oil of cloves. Keep the mixture in the mouth as long as possible.

BREATHING, DIFFICULT.—Vitriolated spirits of ether, 2 ozs., camphor, 15 grs.; paregoric, ¼ oz.; ipecacuanha wine, 1 table-spoon; water, ½ pt. Mix, and cork well. Take 1 tea-spoon when the breathing is laborious. It relieves at once.

HYSTERIA, (Commonly called Hysterics).—This disease, though most frequently excited by some uterine affection, is purely nervous in its character, and one greatly depending on some emotional state of the mind. Though females from the age of seventeen to forty-eight are the general sufferers from hysteria, delicate males, and those employed in sedentary occupations, or of a scorbutic constitution, are sometimes affected by it. Among females, the unmarried and those who have never had children are the persons most predisposed to an attack, which may be induced by uterine irregularity, violent emotions, grief or joy, tight lacing, flatulence, or any cause that weakens the stamina of the body.

SYMPTOMS.—These commence by yawning, depression of spirits, flushings of the face, sudden tears, palpitation of the heart, pain in the left side, with a sense of swelling, and a feeling as if a ball was rising from the stomach up into the throat, with a sense of choking, the patient being convinced that there is an actual round substance lodged in her gullet. From this symptom the disease has been named *Globus Hystericus.* The patient now becomes faint and restless; the body and limbs become agitated with wild and irregular actions; she is seized with fits of alternate tears and laughter, with incoherent and noisy ejaculations; while the muscular contortions become so violent that many men are often necessary to restrain the actions of a delicate girl. After remaining in this state from a few minutes to in some cases many hours, there is a belching of air from the mouth, when, with a heavy sigh or a few deep sobs, she slowly recovers, and either falls into a sleep, or may suddenly start up, and go through the same chain of symptoms, having a succession of fits and intermissions. A peculiarity in hysteria is that it may assume the characters of almost every other disease; the only disease, however, with which it could be con-

founded is epilepsy, and from that it is distinguished by the patient being partially sensible in hysteria, and totally insensible in epilepsy; by the foaming at the mouth in the latter, and the absence of it in hysteria, in which there is always a twinkling or trembling of the eyelids.

TREATMENT.—In young, robust patients, or country girls, bleeding is sometimes necessary to abate the violence of the spasms.

In slight, and indeed ordinary cases, the simple practice of cutting all the strings and laces at once with a knife, laying the patient on her back and dashing cold water suddenly in the face, and holding some hartshorn to the nose, will generally effect a recovery. If not, however, 30 drops of sal-volatile, 30 drops of spirits of lavender, and 10 drops of spirits of ether, in a wine-glass of camphor water, given directly, will, if the face is dried and again suddenly aspersed with cold water, be found sufficient to rouse the patient and break the spasmodic action. In very severe cases, however, an emetic of 15 grs. of white vitriol in warm water will be the most effective and expeditious remedy.

A few hours after the subsidence of the attack an aperient pill should be given, either of asafœtida and aloes, or of compound colocynth, and means taken to recruit the strength, or remove the immediate cause of the attack; in general, steel wine and quinine will be found the best remedies—a tea-spoon of the first every four hours, and 1 gr. of the latter three times a day; or the iron and bark may be combined, as in the following:

Tonic Powders.—Take of prepared carbonate of iron, 2 drs.; sulphate of quinine, 6 grs. Mix, and divide into 6 powders. One to be taken three times a day.

Hysterics.—This disease mostly affects young, nervous, single women. It manifests itself by fits, often preceded by nervous lowness, difficult breathing, sickness at the stomach, palpitations, and a pain at the left side, a rumbling noise in the bowels, the sensation of a ball ascending to the throat, with a feeling of suffocation, convulsions, laughing and crying without any apparent cause. Almost every part of the nervous system is liable to this affection. The disease seldom proves fatal. It is caused by menstrual irregularities, indolence, irregular living, costiveness, indigestion, worms, obstructed perspiration, etc.

An *hysteric fit* may be easily distinguished from fainting; for, in fainting the pulse and respiration are entirely stopped; in hysterics, they are both perceptible.

TREATMENT.—First loosen the dress, and dash cold water in the face. It is of the greatest importance to put the feet and legs in warm water as soon as possible. Give an emetic. The expectorant tincture must be given to remove the rising in the throat, the sense of suffocation, collected phlegm, etc. If the patient cannot swallow, pour it into the mouth, and it will relax the jaws, etc., and cause the patient to swallow; it will send the blood to the surface and extremeties, affect the brain and nervous system so as to end the attack even by a single dose.

The vapor bath should be given as soon as possible. Or, put the patient to bed, and apply hot bricks or bottles of hot water to the feet and sides; the bottles to be folded in cloths wet with vinegar and water. Should these means fail, give the anodyne powders. Give also gentle aperients; and above all, do not neglect to give the nervous pill, which is wonderfully efficacious. The aperients may be assisted

by injections of gruel, ½ oz. of the tincture of asafœtida, or a tablespoon of spirits of turpentine; sweeten with molasses. Tonics, as quinine, should be freely given. If the disease arises from obstructed menses, worms, etc., the case must be treated as directed under those complaints.

LABOR, OR CHILDBIRTH.—The great importance of this subject necessitates our entering at some length on the different matters involved in the important operation of nature that forms the theme before us. Most practical surgeons divide labors into four orders—*natural, tedious, preternatural,* and *complex;* and though we purpose to confine our remarks to the first, it is necessary that we should state the characteristics of each.

A natural labor is one in which the child presents naturally for the birth, and the labor is begun and concluded in the space of *twenty-four hours.* Tedious labors are those in which the presentation is still natural, but from some irregularity in the action of the womb, the delivery is extended over the twenty-four hours, being sometimes delayed for seventy-two hours. Preternatural labor: this order implies an unnatural presentation—that is, any part of the child above or below the *funis,* or navel-cord, presenting, except the head. Complex labors are those where the birth is complicated with hemorrhage, or separation of the *placenta,* or after-birth; by the presentation of a foot or a hand, or, in the case of twins, two hands or two feet, and a few other peculiarities.

NATURAL LABOR is divided into three stages; the *first stage* embraces the period from the first pains, or from the commencement of the contraction of the womb, to the complete dilatation of its mouth, or outlet—a process that may extend from four to twelve hours. The *second stage* extends from the complete opening of the womb to the birth or expulsion of the child, and may extend from half an hour to twelve or more hours; and the *third stage* is comprised in the time from the birth of the child to the expulsion of the after-birth and membranes, and the complete contraction of the womb, generally occupying about half an hour.

Most women strive to keep about till the last, and seldom, unless fantastical, wish to have the surgeon about them until his services are likely to be of use; and most women, particularly those who have had children, can always tell when that time has arrived, both by their feelings and by certain signs denominated *shows;* and as some females have a very rapid time, the whole three stages being often completed in less than an hour, the medical man should always be sent for directly that local demonstration is made.

The surgeon, if he is a man of any experience, will be able to form a shrewd guess of how the labor is progressing by watching his patient's face, paying attention to the tone of her voice, and by noticing whether the abdominal tumor is high up or low down. When it is necessary to make an examination, it should be performed tenderly and expeditiously; the patient being previously placed on her left side in bed, and covered by the counterpane, as it is quite unnecessary for her to go to bed for good till such time as her doctor considers it prudent. The object of the first examination is to ascertain that point, and to satisfy himself on three important matters,—first, is it a natural presentation; in other words, is the *head* presenting, and if so, is it presenting *right,* or in such a manner that the *occiput,* or back of the head, shall be to the pubis and the face to the sacrum? Secondly, is the mouth of the womb open, are its lips thin, dilatable, and moist, or

are they thick, puckered, dry, and unyielding? And lastly, are the passages relaxed and moist? If these points are all favorable, the labor may be prognosticated as likely to be safe and expeditious; the patient should be allowed to get up and walk about the room as long —with occasional rests—as possible, holding by the bed-post every time a pain comes on, the surgeon avoiding all unnecessary examinations, till the length of the pains and their close sequence give evidence that the time for his professional aid is approaching.

When that time has arrived, the woman is to be put to bed, placed as before, on her left side, with her knees drawn closely up to the stomach; the side of the sheet and the quilt should be pinned together in several places, so that the hand can be instantly passed beneath the clothes, when the surgeon, seated in a chair, with his back to the foot of the bed, places himself in readiness for his duty. As the womb contracts with the pain, it forces the child's head on the mouth of the organ; the head, by a succession of rotary, drill-like motions, gradually expanding the opening, when the membranous bag in which the child floats in the *aqua amni* begins to protrude through the aperture; this is the time that great care is necessary on the part of the surgeon not prematurely to rupture the membranes, till both head and membrane have answered their purpose, that of drilling open the mouth of the womb; nature always effecting that object at the proper time. Immediately after the *breaking of the water*, as the rupture of the membranes is called, the womb, having now greater space, contracts with double power, and by one or two pains often forces the head clear from the womb, and a considerable way into the vagina, from whence, after a temporary rest, and sometimes brief snatches of sleep by the patient, the head is brought almost to the birth, the *perinæum* being at each expulsive pain stretched like the head of a drum. This is the most critical period of the whole labor, and demands the greatest vigilance and care on the part of the surgeon to be ready to support with the palm of his hand the *perinæum*, and prevent the too rapid exit of the head. The last and most severe pain is that which expels the head, after which there is a brief intermission, but not of suffering, till another contraction delivers the shoulders; the body and limbs the surgeon, by a lateral motion, removing with both his hands.

With the cry of the child, the exhausted mother forgets all her pains, and it should be the surgeon's duty to take care that she shall have that gratification *instantly*, by observing that nothing gets before the child's mouth, and that by raising the clothes he affords it abundance of air. If the cry is feeble, the mouth and nostrils are to be instantly cleansed from any mucus or froth that may clog them, and the spine rubbed vigorously with the fingers of the right hand. If the child is still mute, or partially so, a basin of warm water is to be placed in the bed, and the infant immersed up to the throat in the bath thus provided, and those means adopted for suspended animation described under "Advice to Mothers."

After the child has cried freely for a few minutes, the navel cord is to be tied by a ligature about an inch and a half from the body, by means of the strings which, before the rupture of the membranes, the surgeon should have placed in readiness, and which are made by doubling two half yards of the unbleached thread, and knotting each together, so as to make two strings of a quarter of a yard long. (See "Advice to Mothers.") Having tied the cord next the child, he should then place the other ligature about two inches above the first, and with the scissors divide the cord near the first, or between the two

knots; the child is then to be loosely folded in a blanket, and placed near the mother till the labor is completed. If, after waiting for *ten minutes*, there should be no succeeding pain, the surgeon should lay his hand on the abdomen, and, grasping the loose integuments, employ both friction and pressure, but gently, to cause the contraction of the womb, that the after-birth may be expelled. Should this not succeed in inducing a pain, the hand should be dipped in cold water, and again applied to the abdomen. If after *fifteen minutes* from the birth the placenta is not expelled, the cut cord is to be taken in the left hand, and the right, guided by the cord, is to be passed gently upward, and, with tenderness and care, the after-birth, finally encompassed by the hand, is to be brought away. As soon as this is effected, and the womb has contracted, a broad binder, girth, or bandage, about eighteen inches wide, is to be passed smoothly around the woman's body, and tied or pinned in several places, tightly over the abdomen. A warm napkin is next to be applied, the patient well covered with extra clothes, a draught with the *sixth* of a grain of morphia, or 25 drops of laudanum, given, and the patient allowed to remain undisturbed for *at least two hours*.

Sometimes, at the commencement, it happens that the woman is disturbed with small, exhausting pains, that keep her occasionally for hours, and sometimes even for days, in a state of irritation and suffering, without producing any effect upon the womb, or advancing the labor in the slightest degree; in fact, only breaking up the patient's strength, and rendering her tetchy and desponding. Examination will discover, in all probability, that the mouth of the uterus is only so far open as to admit the point of the finger; that the lips are rigid extremely sensitive, and dry. An examination of the woman's face during the progress of one of these abortive pains will show the surgeon that the womb is contracting irregularly, and in such a manner that, without closing on the child, and forcing it on the opening, they only cause griping, crampy pains, that do no earthly good, and merely exhaust and worry the patient. In such a case, the duty of the surgeon is to suspend such fugitive or false pains, and give the woman as much rest as possible till the coming on of the true labor. For this purpose the following draught should be given; the patient put to bed, hot water applied to her feet, and a warm napkin laid across the abdomen:

Take of spirits of mindererus, 6 drs.; spirits of sweet nitre, 1 dr. Ipecacuanha wine, ½ dr.; syrup of saffron, 1 dr.; laudanum, 8 drops; or, acetate of morphia, ¼ gr.; camphor water, enough to make 1½ ozs. Mix. To be given directly.

When the patient rouses from the sleep which is certain to follow the abeyance of the pains, it is possible labor will commence in earnest. The surgeon, however, will have satisfied himself, before giving the sedative draught described above, on two of the most important facts connected with the whole labor—the condition of the bowels, and the state of the bladder, for if either are distended, the operations of nature, however forcible and rightly directed, will be delayed for hours. If, then, these should require relieving, they should be emptied directly in all cases; and in such a condition as we have been describing, even before giving the draught. Napkins wrung out of hot water and applied to the pubic region, or a bottle of hot water, enveloped in flannel, applied to the part, will generally excite the bladder to act, without resorting to the catheter; while an enema of warm gruel is often quite sufficient to empty the large bowel, the rectum.

Though nature generally throws out sufficient exudation to keep the passages moist, when the labor is very protracted these always become dry and hot, and then require to be often and freely lubricated with lard, or some kind of a firm pomatum, a quantity of which will always form an accompaniment to the baby-basket.

In cases where the patient is nervous, weak, and the period of even a natural labor would exhaust her strength, or where either convulsions or hemorrhage is to be feared, or should one or the other have set in, it becomes the surgeon's duty to *expedite* the labor as much as possible. To effect this purpose, he must give her the *secale*, or ergot of rye—a drug which possesses the singular property of acting, within ten or twenty minutes, directly on the womb, causing it to contract and expel its contents. There are certain conditions, however, that must previously exist before the secale—except in special cases—can, or ought to be given. These conditions are,—*The womb must be well open, the lips thin and dilatable, the child presenting naturally, the passages relaxed, and no malformation of the pelvis existing.*

To prepare the secale.—Bruise 2 drs. of secale, and boil it slowly, with about 20 grs. of carbonate of soda, in 4 ozs.,—a quartern,—of water, for ten minutes; strain the liquid, and to ½ a tea-cup add enough sugar to sweeten, and 1 table-spoon of gin, and give the vessel to the patient to drink off the hot draught as she would a cup of coffee. In a few minutes, the stronger and more expulsive action of the womb will show that the draught has taken effect.

When hemorrhage attends the labor, the secale must be given directly; and should it follow the expulsion of the after-birth—which, till the womb closes, there is always fear of—cold water must be poured on the abdomen to promote contraction; or cloths, soaked in cold lotions, applied across the stomach, while the patient's strength is supported by brandy, ammonia, and ether, and the feet kept hot with heated bricks.

The most important means, however, is the *plug*, or stopping up of the passage, as the process is called. This is effected by the oiling of a silk handkerchief, and passing the whole gradually up the vagina, so as to allow the formation of a clot and the arrest of the bleeding, or, as it is called at such times, the *flooding*.

If everything goes on favorably, the patient very seldom requires any medicine—except the sedative draught—till the fourth day, when a mild dose of castor oil should be given to act on the bowels; while if the child has been placed at the breast from the first hour, it is seldom in a healthy woman, when common care is taken, that anything will be required for the milk or the breasts. For the management of the navel, and many other important matters on this subject, see "Infant."

LONGING.—A vulgar expression applied to pregnant women, when, from the state of the system, and an impaired appetite, they express a preference for certain articles that some innate feeling teaches them would be beneficial or of service to their state of health. As it is seldom that those desires are irrational or injurious, such solicitations, when they occur, which is by no means often, should, if possible, be always complied with, for so active is the imagination of the female at such times, and so extraordinary the sympathy between the feelings of the mother and the nervous system of her unborn child, that a willful rejection of her desires, or a rude exposure of her wishes, may result in an injury or disfigurement to the infant. On this subject see "Pregnancy," and "Mother's Marks."

MILK FEVER.—This is one of the diseases to which women in childbed—especially with first children—are very liable, and may be induced by cold, by excessive heat in the room, or by any cause of undue excitement. The disease usually takes place about the third day, and is directly caused by some obstruction to the flow of the milk, as from an imperfect nipple, or irritation in drawing the breast.

SYMPTOMS commence with rigors, pain, and throbbing in the head, a repugnance to noise and light, flushed face, contracted pupils, and bloodshot eyes; the pulse is quick, full, and hard, the skin hot, tongue white, with constant thirst. The breasts are sometimes hard, full, and distended; at others the secretion is suppressed, and the breasts are empty and flaccid; in that case the head-symptoms are increased, and delirium often succeeds.

The TREATMENT consists in reducing the circulation, which in young and full-bodied women must be effected first by bleeding, and secondly, by saline purgatives, a low diet, a darkened room, and perfect quiet.

Take of Epsom salts, 2 ozs.; powdered nitre, 1 scr.; tartar emetic, 2 grs.; mint water, 8 ozs. Mix, and dissolve. Three table-spoons to be taken immediately, and repeated every four hours, till the bowels act, and the heat of the body is reduced.

Where the symptoms are urgent, one of the following pills should be taken with each dose of the mixture:

Take of compound colocynth pill, 1 scr.; calomel, 8 grs.; ipecacuanha, 3 grs. Mix, and make into a mass, which is to be divided into six pills.

If, after a free action of the bowels, the head-symptoms continue severe, the temples are to be cupped, or six leeches applied to each temple, a cold lotion of vinegar and water, or powdered ice, placed on the head, bottles of hot water to the feet, and, if necessary, mustard poultices to the thighs.

Concurrent with these remedies, the breasts are to be fomented with flannels dipped in hot water, the milk carefully drawn off by the nurse, or a breast-pump, or, what is still better, when it can be obtained, by a blind puppy, till such time as the child can be applied to the breast with safety. During this period, the patient's room is to be kept cool, and she herself supplied with only farinaceous foods, and warm, diluent drinks, such as barley water, or balm tea.

MENSES, OBSTRUCTED.—Be electrified. Tried. Or, take half a pint of strong decoction of pennyroyal every night at going to bed. Or, boil five large heads of hemp in a pint of water to half. Strain it and drink it at going to bed, two or three nights. It seldom fails. Tried.—*Wesley.*

MENSTRUATION.—Menstruation is a natural secretion, of a red color, from the womb, so named from its occurring once in a month. This periodical discharge appears to be for the purpose of keeping up sanguification, or the making of blood in the body, and a determination thereof to the womb, for the purpose of gestation. In consequence of its not appearing at a proper period of life, of irregularity after it has taken place, and of its being excessive, as well as at the period of its cessation, many derangements in the system occur.

The interruption of the menstrual secretion may be considered of two kinds: the one when it does not begin to flow at that period of life in which it usually appears, which is termed *Chlorosis*, or Green Sickness; and the other when, after it has repeatedly taken place for

some time, it does, from other causes than conception, cease to return at the usual periods.

Chlorosis, or Green Sickness.—Menstruation begins from the fourteenth to the sixteenth year. But the circumstance of a female having passed the age of sixteen, does not always demand medical aid. The date of puberty varies very widely, and one female may menstruate at 12, and another at 20 years of age, without the health being impaired.

As to its *causes*, it may arise from imperfect formation of the organs concerned in the function, from the want of due force in the action of the arteries of the womb, or some preternatural resistance in their extremities; from too full habit of body, from impoverishment of the blood, and from great physical debility.

This retention produces many distressing symptoms; as, headache, flushings in the face, pain in the back and stomach, costiveness, furred tongue, failure of appetite, longing to eat chalk, lime, etc. The face loses its vivid color, and becomes of a yellowish hue; sometimes there is bleeding from the nose and stomach; the skin becomes pale and flaccid; and the feet, and sometimes part of the body, are affected with dropsical swelling. The breathing is hurried by any quick or laborious motion of the body, which sometimes occasions palpitation and fainting. A headache often occurs, but more certainly pains in the back, loins, and haunches.

TREATMENT.—The strength of the system should be restored by exercise. Iron should be combined with some laxative medicine. If there is much pain, take the diaphoretic powder. Also infusions of pennyroyal, or of tansy, or blood-root, motherwort, etc. Bathe the feet occasionally in warm water, and rub well with a coarse flannel. If there is constipation, take aperient medicines. Powdered madder root has been recommended, say half a drachm to be taken three or four times a day in molasses or honey, drinking freely of pennyroyal tea. Repeat, and increase the dose, if necessary. Or it may be administered thus: Take extract of madder, 2 drs.; muriated tincture of steel, 40 drops; bitter tincture, 2 drs.; mint water, 8 ozs. Mix. Three table-spoons to be taken three times a day.

Or, give a vapor bath of a decoction of bitter herbs. Or in bed apply the hot brick covered with a cloth dipped in vinegar and water. Give bitter tonics. Steaming in a sitz bath of bitter herbs till perspiration is produced, is very useful; also fomenting the abdomen, and applying herbs as a warm poultice. If the stomach is deranged, give an emetic, and a dose of mandrake, and aperients as before stated. When the menstrual flux begins, it should be promoted by the use of the hip or sitz bath. Take the dyspeptic pill, and the restorative bitters.

Keep the feet always warm and dry; avoid a cold, damp atmosphere; and when the weather permits, take plenty of open-air exercise. Let the diet be light and nourishing. Do not use any promotive medicines in retention of the menses until there is an effort or struggle of nature to effect it, which may be known by the periodical pains, pressing down upon the hips.

Painful Menstruation.—The pains are severe—in some cases extremely severe. The remedial measures are nearly the same as the preceding. On account of the pain, stillness, quiet of mind, and soothing remedies are rendered indispensable. Adopt the remedies prescribed for the retention of the menses; and take now and then from 10 to 20 drops of laudanum in a little Holland gin diluted with

pennyroyal tea. Let the patient lie in bed Apply hot fomentations to the lower part of the back; and if the pain is excessive, flannels dipped in hot water, wrung out, and sprinkled with spirits of turpentine. Sponge the body well with tepid salt and water every morning, and apply friction with a flesh brush, or coarse towel. Regulate the bowels, if costive, by one of the aperients. Hops boiled in vinegar, and applied to the abdomen, often give relief; so does the tincture of black cohosh, about half a tea-spoon three times a day in a little sweetened water.

Profuse Menstruation.—The flow of the menses is considered immoderate when it recurs more frequently, when it continues longer, or when, during the ordinary continuance, it is more abundant than is usual with the same person at other times. It is not, however, every *inequality* that is to be considered a disease, but only those deviations, that are *excessive* in degree, which are *permanent*, and induce a *manifest state of debility*.

When a large flow of the menses has been *preceded* by headache, giddiness, or difficulty of breathing, and has been ushered in by a *cold shivering*, with much pain in the back and loins, frequent pulse beat, and thirst, it may then be considered preternaturally large; and the face becomes pale, the pulse weak, an unusual debility is felt on exercise, the breathing hurried by much motion, and the back is pained in an erect posture; the extremities are frequently cold, and in the evening the feet swell. General nervousness, with affections of the stomach, frequent faintings, and a weakness of mind, liable to strong emotion from slight causes, when suddenly presented, are also attendant symptoms.

It is produced by a preternatural determination of blood to the womb, or a plethoric state of the body, from high living, strong liquors, over-exertion (particularly dancing), violent passions of the mind, application of cold to the feet, frequent abortions or child-bearing, and whatever will induce great laxity, as living much in warm chambers, and especially drinking much of warm, enervating liquors, such as tea and coffee.

TREATMENT.—Remove immediately all exciting causes of this disease. The flux must not be stopped, but moderated; avoid an erect posture, and external heat, as warm chambers, and soft beds; by using a light, cool, and unexciting diet; by obviating costiveness, as before directed; or use castor oil and lenitive electuary; the external and internal use of astringents, to constringe the vessels of the womb, as the application of cloths sprinkled with vinegar and water over the region of the womb; and three table-spoons of the following mixture every three or four hours: Red rose-leaves, ½ oz.; infuse in 1 pt of boiling water, till cold; then strain; add elixir of vitriol, 60 drops, tincture of rhatany, 1 oz. A gentle emetic may be of great service. The diaphoretic powder, also, is of great service in this case. An injection of cold water into the rectum may check an immoderate flow.

Obstructed Menstruation.—It is often caused by exposure to cold during the menstrual discharge, by wet feet, cold bathing, great mental fear and anxiety, etc., just before the periodical time of discharge. The obstruction injures the health, if it continues two or three periods.

Give the composition powder, or the diaphoretic powder, when the patient is in bed, and place bricks covered with vinegar and water cloths to the feet and sides, or give the vapor bath. Take also Peruvian bark infused in port wine. In short, use the same means as prescribed under "Chlorosis." Take also the female pill.

PREGNANCY.—By this term is understood the development of the ovum in the uterus, or the time that elapses between the first impregnation of the embryo till the full term of its uterine gestation or development, and its expulsion from that organ into the world to carry on a separate existence. The usual period assigned to this process of development is nine calendar months, forty weeks, or 280 days. Few women, however, are always alike in this respect; in some cases the period exceeding that term, in others falling short of it. There are only two diseases that can be mistaken for pregnancy, and those only for a certain length of time—those of dropsy of the abdomen (*ascites*), and ovarian dropsy; from both it may, however, be distinguished by the absence of the round tumor felt after the fourth month in pregnancy, by the swelling being more diffuse in dropsy, and the corresponding emaciation of the body; and by the absence of the morning sickness, the general filling out of the body, and the enlargement of the breasts in pregnancy, and finally by the unchanged state of the nipples, and the absence of all motion of the child in the others. The stethoscope, however, will in both cases soon put the fact beyond dispute.

The indications or signs of pregnancy are divided into the general and particular, or the constitutional and local. The most important of the *general signs* are the cessation of the catamenia, the morning sickness, commencing after the fifth or sixth week, and terminating about the end of the fourth month; heartburn, flatulence, and painful distension of the abdomen toward evening, demanding the loosening of strings and laces; and indigestion and fastidious appetite, irritability of temper, longings, and fanciful desires. The *particular* or *local signs* are: enlargement of the womb, presenting a round, firm appearance, easily felt above the pubes between the third and fourth months; a corresponding distension of the abdomen; enlarged and knotty feel of the breasts after the tenth or twelfth week, with an itching sensation felt in the glands; the nipples at the same time become more erectile, and stand forward, their pores being enlarged and the organs themselves tender and irritable; the areola or circle surrounding them becomes darker and broader, while the countenance assumes for a time a careworn appearance, the mouth and eyes are enlarged, the nostrils pinched, and the nose sharp; and lastly, quickening, or the first motion of the child felt by the mother, an event that takes place about the fourth month.

The complaints or ailments of pregnancy are: acidity of the stomach, heartburn, flatulence, and constipation of the bowels (all of these more or less the result of pressure); faintings, or slight attacks of *hysteria*; a varicose condition of the veins of the legs; and piles, from pressure on the abdominal vessels; and towards the end of the pregnancy, frequent cramps of the muscles of the legs and thighs. From the highly sensitive state of the nervous system in all women during pregnancy, and the remarkably susceptible condition of their minds and bodies, pregnant women should avoid all exciting scenes, and be carefully guarded from the witnessing or hearing of any object of disgust or repulsion. They should at the same time avoid all risk of infection, for though they may escape the disease of which it may be the emanation, the child may be seriously affected by it in the womb, and on its birth exhibit all the symptoms. It is by no means an unusual circumstance for an infant to be born with small-pox fully developed, the mother having herself entirely escaped the disease, to which she may have been some time previously exposed. Her mind should be

kept occupied as far as possible with healthy, pleasurable images, cheerful but not exciting conversation or company, and her eye surrounded with objects of grace and beauty.

The diet of the pregnant woman should be light, easy of digestion, and supporting, but at the same time simple. She should take as much moderate exercise as her strength and condition will permit, and she should—especially in the later period—take frequent rest in the recumbent posture on a sofa; go to bed early; toward the end of her time, take some portion of her breakfast in bed; and in the morning, be careful not to rise too quickly to the sitting position, or sickness, or indeed fainting, may ensue: these directions are particularly necessary with delicate and very sensitive constitutions. Sponging the lower part of the abdomen and thighs with vinegar and water will be found both grateful and necessary during the last month, while to prevent chafing the violet powder will prove an agent of great benefit. See "Womb."

PREMATURE BIRTH OR LABOR.—After the seventh month, the womb is very easily excited to put on its expulsive action from very trivial causes, and from this reason great care should be taken by the female to avoid any sudden jar to the system, or any strong emotion to the mind. The stepping from a single step in coming down stairs, the inconsiderate vivacity of young wives in jumping from a chair, or lifting some heavy piece of furniture, even the turning of a bed, will in many instances bring on a premature labor, and thus all the previous care and attention is thrown away, and the life of both infant and mother jeopardized by a premature birth, for in such cases there is frequently very serious hemorrhage. Another evil attending this kind of labor is, that if it happens with a first child, there is a great probability that such a misfortune may occur at the same time in the next pregnancy, without any accident to cause it.

A premature birth is a labor between the seventh and ninth month, or at any time during the last seven or eight weeks of the pregnancy. In cases of a malformation of the pelvis, or pelvis and spine, but particularly where the inner margin of the pelvis is unnaturally small or narrow—too confined, in fact, to permit the passage of the fetal head—it becomes the duty of the surgeon, who has previously satisfied himself on this point, to *produce* premature labor, so that the head, before becoming fully developed, may pass through the pelvis, and, whether dead or alive, the fetus be expelled, and the womb relieved of its burden.

WOMB, THE.—*(Uterus.)*—If we regard this organ according to the functions it performs in the animal economy, we must consider it as the most important of all the structures in the female body. In shape the womb is of a pyramidal form, or like a flattened pear, which, both in size and figure, it very much resembles, being, in its normal state, between three and four inches in length, and two and a half in breadth at its upper portion, and weighing from half an ounce to two ounces.

The womb lies in front of the abdominal viscera, covered by the *peritoneum*, or investing membrane of the cavity, and is retained in its place by elastic bands, called the round ligaments, the other extremities of which pass out of the abdomen through the anterior openings in the pelvis, and terminate in the fascia covering the inner side of the thigh. From the broad or upper portion of the womb depends on either side a long, hollow passage, called the *fallopian tube*, the end of each tube being rather deeply notched or scalloped, and called by

anatomists the *fimbriated* extremity. By means of the elastic bands of the broad and other ligaments, the womb is allowed to float with perfect freedom in the abdomen, its lower end or apex being attached to the vagina by what is called the neck or *cervex* of the womb, so that the actual mouth of the organ, the *os uteri*, or, as it is sometimes denominated, the *os tincæ*, projects into the vagina.

The womb is a partly membranous and partly muscular bag, having an opening on either side at its upper portion, leading into the fallopian tubes, and another at the apex or mouth, where it terminates in the vagina. The womb is supplied with glands, blood-vessels, and lymphatics, and a perfect net-work or *plexus* of nerves; indeed, in respect of nerves, the uterus is more abundantly supplied than any other organ of the body. In the unimpregnated state, and at the age of puberty, it only weighs about three or four ounces, while during the last month of pregnancy its weight is between three and four pounds; the vessels, also, which in the former condition are extremely small, become, when impregnated, large and distended, like main trunks. Directly conception takes place, the womb begins to enlarge, the *placenta* is formed, the embryo falls from one or other of the fallopian tubes, and becomes attached by what is afterwards called the *funis*, or navel-string, to the center of the placenta, the organ increasing in size and weight till within a few days of the labor; as soon as that process occurs, it immediately contracts, and in a few days recovers its natural size. The womb performs three distinct functions, those of menstruation, conception, and parturition, or the expulsion of the fœtus or child. About the fourth month of pregnancy the womb rises out of the pelvis into the abdomen, where it attains its fullest dimensions, and remains till within a day or two of labor, when the abdominal tumor, as the gravid uterus is called, subsides again into the pelvis.

Womb—Diseases of the.—The womb, like the other organs of the body, is liable both to acute and chronic inflammations, to several functional derangements, to accidents of displacement and injury, and also to tumors, ulceration, and cancerous affections.

Inflammation of the Womb, or Metritis.—The causes of this serious disease are either cold applied to the part, the irritation consequent on the use of over-stimulating injections, the long-continued suppression of the natural discharge, or arises from blows, falls, and difficult and instrumental labors.

The *symptoms* are nearly those of all inflammations of the abdominal organs—pain, increased by pressure; fever, nausea, vomiting, and great tension; while the more distinctive symptoms are excessive tenderness at the neck of the womb, extending to the loins and thighs, and a great prostration of strength.

The *treatment* should begin with a warm bath, hot fomentations, or the hip bath; bleeding, both from the arm and by leeches or cupping-glasses from the abdomen. The French practice of applying from twelve to eighteen leeches to the pudenda, perinæum, and internal parts of the vagina, has of late years obtained great favor in this country among medical men, and when they can induce their patients to submit to their employment; there can be no question to the sound principle of the practice. Besides these depleting means, a blister, or counter-irritant by means of a mustard poultice, must be applied over the lower part of the abdomen, saline purgatives given, and the following powders employed, relieving the heat and the difficulty of making water by linseed tea, or any thin diluent, as a general beverage:

Take of powdered nitre, 2 scrs.; calomel, 36 grs.; tartar emetic, 6

grs ; powdered opium, 12 grs Mix thoroughly, and divide into twelve powders; one to be given every three hours.

Chronic Metritis, or Inflammation of the Womb, very often arises from the acute form having been badly treated or improperly neglected, and is generally that condition of the organ that gives rise to *ulceration, suppuration,* and *membranous inflammation* ; to *enlargement, induration of the mucous follicles,* and *scirrhus* of the neck of the womb; besides causing other structural lesions. As all these diseases are of a surgical character, assume different shapes, may be single or complicated, and, moreover, demand a personal examination to guide the practitioner in selecting the remedial means, it is quite impossible to lay down any system of treatment for diseases that may require an alteration every day, and different measures for different patients. The Functional Affections of the womb, however, are of more general importance than the organic, and to these we shall now direct our attention, in the following order:

SUSPENDED MENSTRUATION.—*(Amenorrhœa.)*—This condition may depend upon two causes—an excess of blood in the organ itself or in the system, or from *plethora ;* or it may depend on poor and too little blood, upon organic debility, or *anæmia* or *chlorosis,* in other words, on a condition of bloodlessness.

Though the natural discharge is generally so necessary to the health and happiness of women, cases occur where females pass through a long life in perfect health, and actually bring up large families, who have never menstruated, or experienced any inconvenience from the absence of the secretion. Such cases, however, are the exceptions to the rule, that the health, physical and mental, depends on the due performance by the womb of its first natural function.

The *symptoms* are laguor, debility, loss of appetite, and general functional derangement; loss of spirits; indifference to all exercise or exertion; hot flushes and cold chills frequently distress the patient. the eyes look dull and heavy, and have a dark circle round their orbits the flesh feels soft and flabby, and the countenance assumes a green or yellowish tint; hence the name, given to this form of the disease, of green sickness. In addition to these symptoms, there is usually thirst pain in the head, and cold extremities, and often swollen feet and legs

The *treatment* in the plethoric form consists in bleeding, both from the arm and the part; 6 ounces of blood being taken from the system with six or nine leeches round the external parts; using the warm bath, and purgatives of aloetic and colocynth pills, and afterwards giving the following emmenagogue mixture, while keeping the feet warm, using friction night and morning over the loins and abdomen, and by the daily employment of the hip bath.

EMMENAGOGUE MIXTURE.—Take of infusion of pennyroyal, 7 ozs.; sweet spirits of nitre, 3 drs.; spirits of juniper, ½ oz ; tincture of cantharides, 1 dr. Mix; three table-spoons to be taken twice a day, or two table-spoons three times in twenty-four hours. When the suppression arises from *anæmia,* the treatment consists in the warm hip bath; the employment of steel and other tonics; electricity, when it can be obtained, or the wearing of an electric chain; friction night and morning along the lower part of the spine; and acting on the bowels by aloetic pills Some medical men apply a few leeches both to the vulva and round the nipples on the breast, as stimulants to the uterus; these means should be followed by the above mixture, and by such remedies as are prescribed under "Chlorosis," which see. This disease is often accompanied by what are called vicarious discharges of blood—

from the lungs, nose, bowels, or stomach,—efforts of nature to unload the system of the diseased accumulation.

Painful Menstruation.—(*Dysmenorrhœa.*)—The *symptoms* of this affection are pains in the loins, spreading down the groins and thighs, and over the abdomen, with darting colicy pains, and sometimes vomiting and diarrhea, and burning heat in voiding the contents of the bladder, particularly severe about the urethra; the nervous system is often more or less affected, and there is often hysteria; these symptoms go on increasing till the usual period for the discharge arrives, when they subside or gradually pass off as the catamenia makes its appearance, which is sometimes abundant, at others scanty, and attended with a tenacious secretion from the coats of the uterus.

The *treatment* consists in relieving the urgent symptoms, and preventing their recurrence. The first object will be achieved by the frequent use of the warm hip bath, a few leeches applied externally, by fomentations to the part, and by the following mixture:

Take of powdered nitre, 1 scr.; camphor water, 6 ozs.; laudanum, 1½ drs. Mix; two table-spoons to be taken every six hours. The second object will be effected by attention to the state of the patient's bowels, and by giving steel wine, carbonate of iron, or a course of chalybeate waters during the intervening periods of the discharge.

Immoderate Menstruation, or Flow of the Secretion.—(*Menorrhœa.*)—The menstruation is said to be immoderate when it returns every ten or fourteen days, or more frequently than usual; when it continues longer than its natural time, or is more abundant than it should be or is customary with the female. This disease may arise from a plethoric or debilitated state of the system.

The *symptoms*, when it proceeds from a fullness of body, are shivering, acute pains in the head and loins, a turgid or flushed countenance, with great heat of body and irritation of the skin, the pulse being hard and bounding. When debility is the exciting cause the body is cold and pale, the flesh feeling relaxed and soft, the breathing short and difficult, the least exertion producing exhaustion; the face is pallid and anxious, and the pulse small and feeble. It is only in the latter form that *menorrhœa* is ever dangerous or fatal.

The *treatment* in the plethoric form consists in reducing the febrile symptoms by general bleeding, by saline purgatives, acidulated diluent drinks, and the means proper to an inflammatory state of the system; by the avoidance of all exertion, keeping the patient in the horizontal posture, and by the use of the following mixture and powders:

PURGATIVE MIXTURE.—Take of infusion of rose leaves, 6 ozs.; Epsom salts, 1 oz.; diluted sulphuric acid, 30 drops. Mix; the fourth part to be taken every night and morning.

ASTRINGENT POWDERS.—Take of sugar of lead, 30 grs.; powdered kino, 20 grs. Mix, and divide into six powders, one to be taken every four hours; or seven drops of the muriated tincture of iron in a little water may be substituted every four hours for the powders. When debility is present, in addition to the astringent powders just prescribed, or the tincture of iron, the patient must take tonics, or such a mixture as the following:

TONIC MIXTURE.—Take of cascarilla, 2 drs.; canella bark, 2 drs.; boiling water, 6 ozs.; infuse for four hours, and add: quinine, 20 grs.; diluted sulphuric acid, 30 drops. Mix; one table-spoon to be taken every three hours.

In both cases cold applications should be applied to the lower part of the abdomen, bottles of hot water to the feet, and decoction of oak

bark, or an astringent lotion of sugar of lead, used as an injection by the vagina twice a day.

SUDDEN SUPPRESSION.—This is more frequently the consequence of cold applied in some form to the feet or body, or it may arise from great mental excitement. From whatever cause, the result is very hurtful to the system, and may lead to serious consequences. To restore the discharge as quickly as possible, a hot hip bath, warm fomentations, and bottles of hot water to the feet are among the first means to be adopted. A dessert-spoon of white mustard seed is a favorite remedy with many females, and often a most effectual one; a more certain means, however, is half a cup of pennyroyal tea, with a teaspoon of spirits of nitre, twice a day.

Cessation of the Menstrual Discharge.—The period when this natural secretion determines is the most important and critical in the life of a woman. The number of females who suffer any constitutional disturbance when the catamenia commences is few indeed compared with those who experience inconvenience and suffering at its cessation; as the coming on of this secretion is an evidence of the healthy state of the womb to perform the great function of reproductive life, so its decline shows that it has ceased to be capable of performing that important duty. Though the *change of life*, as this period is called, comes on early in some women—even at thirty-five—the average period in this country is between forty-four and fifty. Great irregularity takes place in the periodic discharge for some time before the final cessation occurs, the female usually experiencing sudden flushes of heat, irritability of the skin, a sense of fulness in the head, with headache and other evidences of constitutional disturbance; this is the time when, if there are any functional or organic diseases existing, they are likely to be increased or rendered incurable; and when women of robust health are attacked with bad legs, and become debilitated, while others, again, rally from constitutional weakness, and enjoy better health for the remainder of their lives. The time is particularly critical to those females who have any swellings or tumors on the breast, or any disease of the uterus or of its appendages, as cancerous degenerations are particularly liable to follow or accompany this change of life. With the majority of women, however, the cessation of the catamenia is a period of benefit,—the body fills out, the mind becomes more tranquil, and the spirits, with the bodily strength, rise in due proportion. Some persons consider a long course of medicines to be imperatively called for at this period, but such is by no means generally necessary. Attention to the state of the bowels by occasional doses of rhubarb and colocynth pills, or such as the following, with a warm bath; care in keeping the skin in a soft and healthy state, and guarding the feet from cold and wet, are all the remedies or precautions, as a general rule, that are called for.

APERIENT PILLS FOR FEMALES.—Take of compound extract of colocynth, 1 dr.; powdered aloes, 24 grs; powdered rhubarb, 18 grs.; powdered ginger, 1 scr.; extract of hyoscyamus, ½ dr.; oil of caraway, 8 drops. Mix, and divide into thirty pills; two to be taken at bedtime when required.

Flour Albus (Leucorrhœa) or The Whites.—Though this discharge from the vagina and uterus is named from its general color being white, it is very often of a yellow, brown, or even greenish hue, and varies from a limpid fluid to a tenacious, ropy discharge that may be a mere exudation, or amount to several ounces in every twenty-four hours. The general health usually suffers when this discharge takes

place, giving rise to headache, loss of appetite, languor, and debility, with weary pains in the back and down the thighs; the bowels are more or less deranged, and there is often palpitation and hysterical fits. From the age of fifteen all females are liable to this exhausting complaint; and some, indeed, are to a certain extent never completely free from it.

The *treatment* consists in a strict attention to the state of the bowels, a course of tonics, both mineral and vegetable, exercise in the open air, and, when the strength will admit of it, cold sea bathing; regular hours for meals and exercise, going to bed early, and by change of scene and air. Port wine and stout are often of the utmost consequence, but spirits or powerful stimulants are seldom necessary. Concurrent with tonics, a judicious diet, and the general regimen given, must be a course of local treatment, such as the daily use of the cold fresh or salt water hip-bath, and the alternate weekly employment of one or other of the following articles or prescriptions as injections for the vagina:

No. 1. Decoction of oak bark.
2. Decoction of red Peruvian bark.
3. Decoction of logwood.
4. Decoction of pomegranate bark.
5. One pint of cold water, in which three drachms of alum have been dissolved.
6. One drachm of white vitriol dissolved in a pint of water.
7. An infusion of gall-nuts, made by infusing for six hours three drachms of bruised galls in a pint of boiling water, and adding to the liquor, when cold and strained, one drachm of powdered alum.
8. A pint of cold water, mixed with one ounce and a half of tincture of catechu.

Injections of this nature should seldom be used more than twice a day, three large syringefuls being thrown up at every time. The strength of each preparation can be increased whenever necessary. Sometimes leucorrhœa continues so long that it assumes some of the characters of a gleet; in such cases, when neither tonics to the system, nor astringents to the part will afford permanent relief, it is necessary to give cubebs or copaiba, the former in half-drachm doses of the powder three times a day, and a small tea-spoon of the latter in mucilage twice a day, with a wine glass of the infusion of *uva ursi* every six hours. Some medical men prefer a piece of the finest and softest sponge, well soaked in the lotion, as an application in preference to the syringe, as a more certain method of effecting the object sought by the injection.

The womb is sometimes subject to very serious displacements; of these the most noticeable are:

Inversion of the Uterus.—A condition in which the organ is in a measure turned inside out; there are two forms of this accident,—the *imperfect*, and *complete*. In the former, the upper portion or *fundus* of the womb falls down into the cavity as far as the neck of the uterus; in the later, the inversion is carried still farther, passes the mouth of the womb and the vagina, and descends, in some cases, even to the thighs, thus forming a complete case of *procidentia uteri* Inversion seldom occurs except at or after labor, and though it may follow the placenta in women of very relaxed and delicate constitutions, it is very frequently induced by rough, unskilful management during confinement.

The *treatment* is to restore the organ, by gentle and judicious

manipulation, to its natural position; enjoin absolute rest to the patient on the back for some time, with the hips slightly raised; and before the female is allowed to stand, employ the use of a pessary. Of the danger that may accrue from this state of the uterus it is unnecessary to speak, as only a surgeon can minister to such an accident.

Retroversion of the Womb is a bending backwards and downwards of the top or fundus of the organ, in such a manner as to fix the overlapping part between the sacrum, or rectum, and the vagina, the latter organ being pressed upwards and forwards, while the bladder is lifted up towards the abdomen, or else compressed on the pubic bones. This kind of accident generally occurs about the third month of pregnancy, and is very difficult to detect; indeed, it can only be ascertained by an examination.

The *treatment* is in the first instance, to open the bowels—which, in consequence of the pressure, are always confined—by a succession of emollient injections, and empty the bladder by the catheter; the patient being then placed on her hands and knees, the surgeon endeavors to push the organ back into its position.

Polypi of the Womb.—The peculiar pyramidal shaped tumors of this character affecting the womb vary in size from that of a little finger to a child's head, and are found at the fundus, or top, on the inner side of the neck, or at the lower edge of the mouth of the uterus When small, they neither create pain nor interfere generally with the natural function of the organ, though when they are large, or bleed they become a frequent cause of miscarriage. Unmarried females are equally subject to this complaint with matrons; and, unfortunately these morbid growths are by no means rare, and as they are not only the cause of frequent hemorrhage, but often protrude into the vagina they became a source of constant suffering and irritation; their removal, therefore, when possible, should always be effected.

TREATMENT.—This, and cancer of the womb, are the only diseases that demand the use of the speculum, as without the dilatation and light that instrument affords, the surgeon would be unable to apply the ligatures round the polypi, use the knife for their excision, or employ the caustic, the only radical means of extirpating such morbid growths.

Dropsy of the Womb.—This is a very rare disease, and very often confounded with a much more frequent affection, that of—

Dropsy of the Ovaries.—*Ovarian* dropsy may occur on either side of the body, and is most frequently met with in unmarried females. It is seldom that more than one ovary is affected, the coat or membrane of the one that takes on the diseased action gradually enlarging, and which being a long time free from pain, is unnoticed or disregarded. The fimbriated extremities of the fallopian tubes containing the ovaria being deeply seated in either groin, it is in that direction that the first evidence of the disease shows itself; but the swelling or puffiness, giving no pain, is unnoticed, till the tumor enters the abdomen, when, pressing on the bladder, or some other organ, it begins to create inconvenience, which increases with the distension. As the tumor mounts still higher, and has more room, the enlargement rapidly increases, when to the physical pain is added the mental suffering consequent on the protuberance giving the unfortunate patient the appearance of being in the family way. Constipation, irritation of the bladder, loss of appetite, a sense of dragging or bearing down, soon after follows, with many of the symptoms of pregnancy; and it is only when months, and often years, have passed by that even intimate friends will believe [illegible]

disease, and not immorality, has caused the altered appearance of the patient.

This disease is apt to be mistaken for dropsy of the belly, and for pregnancy. From the latter it can be distinguished by the tumor always commencing, and for a long time remaining, in the side, by the absence of the morning sickness, the unchanged state of the breasts, and by the length of time. From dropsy of the belly it is chiefly distinguished by the absence of the emaciation and careworn countenance peculiar to *ascites*.

TREATMENT.—Unfortunately for the credit of science, no means have yet been discovered to benefit this disease; the only palliation yet found has been to leave the tumor alone as long as possible, and then draw off the water by a trochar and canulla; fill the sac with wine and water, or a solution of iodine, and treat it like hydrocele; almost every operation undertaken to remove this encysted tumor, though performed with humanity and skill by Lizars, Liston, Smye, and the first surgeons in Europe, has proved unfortunate or fatal.

WHITES, OR LEUCORRHŒA, (Fluor Albus).—This disease is peculiar to females. It is indicated by a morbid secretion of mucus from the passage leading to the womb, termed vagina. It varies, in appearance, consistence, and quantity, in different persons. Women of delicate constitution, debilitated by hard labors, miscarriages, grief, poor living, and of an erysipelatous habit, generally termed scorbutic, are most subject to it, and in them it proves very obstinate.

It is the effect both of relaxation and inflammatory excitement.

TREATMENT.—When it arises from relaxation, the tonic pills will generally succeed in affecting a cure. Cold bathing or the local application of cold water, is a good remedy for this disease, and should be used every morning, provided the patient be free from cough or difficulty of breathing, and not subject to a determination of blood to the brain.

If the discharge continue after the employment of these means, an astringent lotion may be used; as the following: Take of pomegranate-rind, bruised, 3 drs.; boil in a quart of water to a pint and a half; then strain, and add alum, 1½ drs. To be injected by means of a female syringe.

Give an emetic and a vapor bath occasionally. If the stools are of a pale clay or very dark color, or the patient be subject to erysipelas, or eruption of the skin, take a little rhubarb and magnesia every other night for about ten days.

When fluor albus occurs in a person of a robust and sanguine habit, it may be considered of an inflammatory nature; in which case, instead of tonic medicines above recommended, the patient should take every other morning, 2 drs. of Epsom salts, and 10 grs. of nitre powder, with 15 of gum-arabic powder, in a glass of barley-water three times a day; which, with a low diet, (free from all kinds of stimulants,) will succeed in curing it. To these remedies, the application of cold water, will be a powerful auxiliary.

When the discharge is of an *ichorous* nature, and of a *dark or yellowish* color, and attended with *pain* in the region of the womb, or with irritation, burning heat, difficulty or heat of urine, troublesome itching, a sense of bearing down, and a frequent inclination to evacuate; pains on the approach, or during the time of menstruation; and particularly if pieces of coagulated blood (generally termed clots) are discharged; some *organic* disease of the womb may be suspected, especially if they occur about the time of the cessation of the menstrual discharge.

The buchu leaves are a good remedy for this disease, and in many cases of long standing, the tincture, in the dose of two tea-spoonfuls, in a wine-glass of the decoction of marshmallow root, has succeeded in curing the disease, and improving the general health. In obstinate cases it may be given in an infusion of the leaves, in lieu of the decoction of marshwallow root.

The diet must depend on the general health of the patient. If she be weakly, and of a delicate constitution, it should be nourishing and easy of digestion, such as blanc mange, and the vegetable and animal jellies, with a small portion of meat; a little good Port or Sherry may also be allowed, but water should be adopted in lieu of malt liquor; but if the complaint be attended with much irritation or pain on making water, it will be advisable to avoid pepper and much salt, but not otherwise.

Mr. Wesley recommends the following: Live chastely; feed sparingly; use exercise constantly; sleep moderately, but never lying on your back. Take 8 grs. of jalap every eight days. This usually cures in five weeks.

Or, make Venice turpentine, flour, and fine sugar, equal quantities, into small pills. Take three or four of these morning and evening This also cures most pains in the back. Or, take yellow resin, powdered, 1 oz.; conserve of roses, ½ oz.; powdered rhubarb, 3 drs.. syrup, a sufficient quantity to make an electuary. Take a large tea spoonful of this twice a day, in a cup of comfrey-root tea.

CHILDREN, DISEASES OF.—The attention of mothers cannot be too early called to the fact that each stage in the growth of children from infancy to youth, is liable to diseases and ailments peculiar, or to a certain extent so, to their age, and that according to the negligence or care bestowed on their moral and physical health and training as children, and emphatically while under the responsible tution of their mothers, will depend much of the intellectual virtue or depravity, and the bodily strength or debility, on which the future happiness or misery of the grown man or woman will depend. Of these maternal duties we shall have more to say when we come to the subject appertaining to Mothers; at present we have to do with childhood.

All children, from their extremely delicate organization, are more susceptible of changes of heat and cold than adults, and at the same time are much sooner influenced by medicine, and more easily depressed, than the fully matured; but on the other hand, they rally much quicker from all depressing influences. On account of these facts children should always be well and amply clothed; not according to the vanity or caprice of their parents (who, from the idea that plenty of air admitted to the emaciated limbs of their children is conducive to their growth, dress them like young Highlanders in the depth of winter), but according to the severity or mildness of the season, in befitting apparel. Again, all strong or drastic drugs should be withheld from children,—such as elaterium, Croton oil, Epsom salts, gamboge, and, in fact, all violent purgative medicines. Another fact, connected with this subject is, that nearly all the affections of childhood take their origin from, or are dependent on, some mischief in the stomach or bowels; this truth must be familiar to all mothers, who cannot fail to have noticed the almost magical improvement which will take place in a young child from the operation of a simple aperient powder, when, an hour before, the symptoms threatened most serious consequences. The information obtained from this fact is, that though violent purgatives are injurious to childhood, mild aperient medicines are hardly ever out of place with young patients, and will

often ward off, if not cure—when given in time—a serious disease. Equally inadmissable in childhood are stimulants; the natural vivacity of children rendering wines and spirits—except in rare and peculiar cases—most injurious; air, exercise, and a sufficiency of wholesome food, being the only stimulants ever required by children. We have already said that every stage of juvenile life is more or less subject to its own class of ailments; thus, in early infancy we find the red gum, thrush, and diarrhea; from the sixth to the eighteenth month the many affections springing from teething show themselves, infantile remittent fever, and inflammation of the lungs. From two to seven years, the more particularly infantile diseases are developed, as glass pox, scarlet fever, measles, croup, whooping cough, mumps, worms, and that train of evils attending the presence of those parasites; mesenteric disease, and water on the head, with other minor maladies.

For the history and treatment of each disease mentioned, consult the article under its proper name.

Children.—Happy indeed is the child who, during the first period of its existence, is fed upon no other aliment than the milk of its mother, or that of a healthy nurse. If other food becomes necessary before the child has acquired teeth, it ought to be of a liquid form; for instance, biscuits or stale bread boiled in an equal mixture of milk and water, to the consistence of a thick soup; but by no means even this in the first week of its life.

Flour or meal ought never to be used for soup, as it produces viscid humors, instead of a wholeseme nutritious chyle.

After the first six months, weak veal or chicken broth may be given and also, progressively, vegetables that are not very flatulent; for instance, carrots, endives, spinach, parsnips, with broth, and boiled fruit, such as apples, pears, plums, and cherries.

When the infant is weaned, and has acquired its proper teeth, it is advisable to let it have small portions of meat, and other vegetables, as well as dishes prepared of flour, etc., so that it may gradually become accustomed to every kind of strong and wholesome food.

We ought, however, to be cautions, and not upon any account to allow a child pastry, confectionery, cheese, heavy dishes made of boiled or baked flours, onions, horseradish, mustard, smoked and salted meat, especially pork, and all compound dishes; for the most simple food is the most wholesome.

Potatoes should be allowed only in moderation, and not to be eaten with butter, but rather with other vegetables, either mashed up or in broth.

The time of taking food is not a matter of indifference; very young infants make an exception; for, as their consumption of vital power is more rapid, they may be more frequently indulged with aliment.

It is, however, advisable to accustom even them to a certain regularity, so as to allow them their victuals at stated periods of the day; for it has been observed that those children which are fed indiscriminately through the whole day, are subject to debility and disease. The stomach should be allowed to recover its tone, and collect the juices necessary for digestion, before it is supplied with a new portion of food.

The following order of giving food to children has been found proper, and conducive to their health: After rising in the morning, suppose about six o'clock, a moderate portion of lukewarm milk, with well baked bread, which should by no means be new; at nine, o'clock, bread with some fruit, or, if fruit be scarce, a small quantity of fresh butter; about twelve o'clock, the dinner, of a sufficient quantity;

between four or five o'clock, some bread with fruit, or, in winter, the jam of plums, as a substitute for fruit.

On this occasion, children should be allowed to eat till they are satisfied, without surfeiting themselves, that they may not crave for a heavy supper, which disturbs their rest, and is productive of bad humors; lastly, about seven o'clock, they may be permitted a light supper, consisting either of milk, soup, fruit, or boiled vegetables and the like, but neither meat nor mealy dishes, or any article of food which produces flatulency; in short, they ought then to eat but little, and remain awake at least for an hour after it.

It has often been contended that bread is hurtful to children; but this applies only to new bread, or such as is not sufficiently baked; for instance nothing can be more hurtful or oppressive than rolls, muffins and crumpets. Good wheaten bread, especially that baked by the aërated process, is extremely proper during the first years of infancy; but that made of rye, or a mixture of wheat and rye, would be more conducive to health after the age of childhood.

With respect to drink, physicians are decidedly against giving it to children in large quantities, and at irregular periods, whether it consists of the mother's milk, or any other equally mild liquid.

It is improper and pernicious to keep infants continually at the breast; and it would be less hurtful, nay, even judicious, to let them cry for a few nights, rather than to fill them incessantly with milk, which readily turns sour on the stomach, weakens the digestive organs, and ultimately generates scrofulous affections.

In the latter part of the first year, pure water may occasionally be given; and if this cannot be procured, a light and well-fermented table beer might be substituted. Those parents who accustom their children to drink water only, bestow on them a fortune, the value and importance of which will be sensibly felt through life.

Many children acquire a habit of drinking during their meals; it would be more conducive to digestion if they were accustomed to drink only after having made a meal. This salutary rule is too often neglected, though it be certain that inundations of the stomach, during the mastication and maceration of the food, not only vitiate digestion, but they may be attended with other bad consequences; as cold drink, when brought in contact with the teeth previously heated, may easily occasion cracks or chinks in these useful bones, and pave the way for their carious dissolution.

If we inquire into the cause which produces the crying of infants, we shall find that it seldom originates from pain, or uncomfortable sensations; for those who are apt to imagine that such causes must *always* operate on the body of an infant, are egregiously mistaken; inasmuch as they conceive that the physical condition, together with the method of expressing sensations, is the same in infants and adults.

It requires, however, no demonstration to prove that the state of the former is essentially different from that of the latter.

In the first year of infancy, many expressions of the tender organs are to be considered only as efforts or manifestations of power.

We observe, for instance, that a child, as soon it is undressed, or disencumbered from swaddling clothes, moves its arms and legs, and often makes a variety of strong exertions; yet no reasonable person will suppose that such attempts arise from a preternatural or oppressive state of the little agent.

It is therefore equally absurd to draw an unfavorable inference from every inarticulate cry; because, in most instances these vociferations

ting sounds imply the effort which children necessarily make to display the strength of their lungs, and exercise the organs of respiration.

Nature has wisely ordained that by these very efforts the power and utility of functions so essential to life should be developed, and rendered more perfect with every respiration.

Hence it follows, that those over-anxious parents or nurses, who continually endeavor to prevent infants crying, do them a material injury; for, by such imprudent mangement their children seldom or never acquire a perfect form of the breast, while the foundation is laid in the pectoral vessels for obstructions and other diseases.

Independently of any particular causes, the cries of children, with regard to their general effects, are highly beneficial and necessary.

In the first period of life, such exertions are the almost only exercise of the infant; thus the circulation of the blood, and all the other fluids, is rendered more uniform; digestion, nutrition, and the growth of the body are thereby promoted; and the different secretions, together with the very important office of the skin, or insensible perspiration, are duly performed.

It is extremely improper to consider every noise of an infant as a claim upon our assistance, and to intrude either food or drink, with a view to satisfy its supposed wants. By such injudicious conduct, children readily acquire the injurious habit of demanding nutriment at improper times, and without necessity; their digestion become impaired; and consequently, at this early age, the whole mass of the fluids is gradually corrupted.

Sometimes, however, the mother or nurse removes the child from its couch, carries, it about, frequently in the middle of the night, and thus exposes it to repeated colds, which are in their effects infinitely more dangerous than the most violent cries.

We learn from daily experience, that children who have been the least indulged, thrive much better, unfold all their faculties quicker, and acquire more muscular strength and vigor of mind, than those who have been constantly favored, and treated by their parents with the most solicitous attention; bodily weakness and mental imbecility are the usual attributes of the latter.

The first and principal rule of education ought never to be forgotten—that man is intended to be a free and independent agent; that his moral and physical powers ought to be *spontaneously* developed; that he should as soon as possible be made acquainted with the nature and uses of all his faculties, in order to attain that degree of perfection which is consistent with the structure of his organs; and that he was not originally designed for what we endeavor to make of him by artificial aid.

The greatest art in educating children consists in a continued vigilance over all their actions, without ever giving them an opportunity of discovering that they are guided and watched.

There are, however, instances in which the loud complaints of infants demand our attention.

Thus, if their cries be unusually violent and long continued, we may conclude that they are troubled with colic pains; if, on such occasions, they move their arms and hands repeatedly towards the face, painful teething may account for the cause; and if other morbid phenomena accompany their cries, or if these expressions be repeated at certain periods of the day, we ought not to slight them, but endeavor to discover the proximate or remote causes.

Infants cannot sleep too long; and it is a favorable symptom when

they enjoy a calm and long-continued rest, of which they should by no means be deprived, as this is the greatest support granted to them by nature

A child lives comparatively much faster than an adult; its blood flows more rapidly; every stimulus operates more powerfully; and not only its constituent parts, but its vital resources also, are more speedily consumed.

Sleep promotes a more calm and uniform circulation of the blood; it facilitates the assimilation of the nutriment received, and contributes towards a more copious and regular deposition of alimentary matter, while the horizontal posture is the most favorable to the growth and development of the child.

Sleep ought to be in proportion to the age of the infant. After the age six months, the periods of sleep, as well as all other animal functions, may in some degree be regulated; yet, even then, a child should be suffered to sleep the whole night, and several hours both in the morning and in the afternoon.

Mothers and nurses should endeavor to accustom infants, from the time of their birth, to sleep in the night preferably to the day, and for this purpose they ought to remove all external impressions which may disturb their rest, such as noise, light, etc., but especially not to obey every call for taking them up, and giving food at improper times.

After the second year of their age, they will not instinctively require to sleep in the forenoon, though after dinner it may be continued to the third and fourth year of life, if the child shows a particular inclination to repose; because, till that age, the full half of life may safely be allotted to sleep.

From that period, however, sleep ought to be shortened for the space of one hour with every succeeding year, so that a child of seven years old may sleep about eight, and not exceeding nine hours; this proportion may be continued to the age of adolescence and even manhood.

To awaken children from their sleep with a noise, or an impetuous manner, is extremely injudicious and hurtful; nor is it proper to carry them from a dark room immediately into a glaring light, or against a dazzling wall; for the sudden impression of light debilitates the organs of vision, and lays the foundation of weak eyes, from early infancy.

A bedroom or nursery ought to be spacious and lofty, dry, airy and not inhabited through the day.

No servants, if possible, should be suffered to sleep in the same room, and no linen or washed clothes should ever be hung there to dry, as they contaminate the air in which so considerable a portion of infantile life must be spent.

The consequences attending a vitiated atmosphere in such rooms are serious, and often fatal.

Feather beds should be banished from nurseries, as they are unnatural and debilitating contrivances.

The windows should never be opened at night, but may be left open the whole day in fine clear weather.

Lastly, the bedstead must not be placed too low on the floor; nor is it proper to let children sleep on a couch which is made without any elevation from the ground; because the most mephitic and pernicious stratum of air in an apartment is that within one or two feet from the floor, while the most wholesome, or atmospheric air, is in the middle of the room, and the inflammable gas ascends to the top.

COOKERY FOR CHILDREN—Food for an Infant.—Take of fresh

cow's milk, one tablespoonful, and mix with two tablespoonfuls of hot water; sweeten with loaf sugar, as much as may be agreeable. This quantity is sufficient for once feeding a new-born infant; and the same quantity may be given every two or three hours,—not oftener,—till the mother's breast affords natural nourishment.

Milk for Infants Six Months Old.—Take one pint of milk, one pint of water; boil it and add one tablespoonful of flour. Dissolve the flour first in half a teacupful of water; it must be strained in gradually, and boiled hard twenty minutes. As the child grows older, one-third water. If properly made, it is the most nutritious, at the same time the most delicate food that can be given to young children.

Broth, made of lamb or chicken, with stale bread toasted, and broken in, is safe and wholesome for the dinners of children when first weaned.

Milk, fresh from the cow, with a very little loaf sugar, is good and safe food for young children. From three years old to seven, pure milk, into which stale bread is crumbled, is the best breakfast and supper for a child.

For a Child's Luncheon.—Good sweet butter, with stale bread is one of the nutritious, at the same time the most wholesome articles of food that can be given children after they are weaned.

Milk Porridge.—Stir four tablespoonfuls of oatmeal, smoothly, into a quart of milk, then stir it quickly into a quart of boiling water, and boil it up a few minutes till it is thickened; sweeten with sugar. Oatmeal, where it is found to agree with the stomach, is much better for children, being a mild aperient as well as cleanser; fine flour in every shape is the reverse. Where biscuit-powder is in use, let it be made at home; this, at all events, will prevent them getting the sweepings of the baker's counters, boxes, and baskets. All the waste bread in the nursery, hard ends of stale loaves, etc., ought to be dried in the oven or screen, and reduced to powder in the mortar.

Meats for Children.—Mutton, lamb, and poultry are the best. Birds and the white meat of fowls are the most delicate food of this kind that can be given. These meats should be slowly cooked, and no gravy, if made rich with butter, should be eaten by a young child. Never give children hard, tough, half-cooked meats, of any kind.

Vegetables for Children—Eggs, etc.—Their rice ought to be cooked in no more water than is necessary to swell it; their apples roasted, or stewed with no more water than is necessary to steam them; their vegetables so well cooked as to make them require little butter, and less digestion; their eggs boiled slowly and soft. The boiling of their milk ought to be directed by the state of their bowels; if flatulent or bilious, a very little curry-powder may be given in their vegetables with good effect. Turmeric and the warm seeds (not hot peppers) are also particularly useful in such cases.

Potatoes and Peas.—Potatoes, particularly some kinds, are not easily digested by children; but this may be remedied by mashing them vey fine, and seasoning them with sugar and a little milk. When peas are dressed for children, let them be seasoned with mint and sugar, which will take off the flatulency. If they are old, let them be pulped, as the skins are perfectly indigestible by children's stomachs. Never give them vegetables less stewed than would pulp through a colander.

Rice Pudding with Fruit.—In a pint of new milk put two large spoonfuls of rice, well washed; then add two apples, pared and quartered, or a few currants or raisins. Simmer slowly till the rice is very soft, then add one egg beaten, to bind it; serve with cream and sugar.

Puddings and Pancakes for Children.—Sugar and egg, browned before the fire, or dropped as fritters into a hot frying-pan, without fat, will make a nourishing meal.

To Prepare Fruit for Children.—A far more wholesome way than in pies or puddings, is to put apples sliced, or plums, currants, gooseberries, etc., into a stone jar, and sprinkle among them as much sugar as necessary. Set the jar in an oven on a hearth, with a teacupful of water to prevent the fruit from burning; or put the jar into a saucepan of water till its contents be perfectly done. Slices of bread or some rice may be put into the jar, to eat with the fruit.

Rice and Apples.—Core as many nice apples as will fill the dish; boil them in light syrup; prepare a quarter of a pound of rice in milk with sugar and salt; put some of the rice in the dish, put in the apples and fill up the intervals with rice; bake it in the oven till it is a fine color.

A Nice Apple Cake for Children.—Grate some stale bread, and slice about double the quantity of apples; butter the mould, and line it with sugar paste, and strew in some crumbs, mixed with a little sugar; then lay in apples, with a few bits of butter over them, and so continue till the dish is full; cover it with crumbs, or prepared rice; season with cinnamon and sugar. Bake it well.

Fruits for Children.—That fruits are naturally healthy in their season, if rightly taken, no one who believes that the Creator is a kind and beneficient Being can doubt. And yet the use of summer fruits appears often to cause most fatal diseases, especially in children. Why is this? Because we do not conform to the natural laws in using this kind of diet. These laws are very simple, and easy to understand. Let the fruit be ripe when you eat it; and eat when you require *food*. Fruits that have *seeds* are much more wholesome than the *stone* fruits. But all fruits are better, for very young children, if baked or cooked in some manner, and eaten with bread. The French always eat bread with raw fruit. Apples and winter pears are very excellent food for children,—indeed, for almost any person in health,—but best when eaten for breakfast or dinner. If taken late in the evening, fruit often proves injurious The old saying, that apples are *gold in the morning, silver at noon, and lead at night*, is pretty near the truth. Both apples and pears are often good and nutritious when baked or stewed, for those delicate constitutions that cannot bear raw fruit. Much of the fruit gathered when unripe might be rendered fit for food by preserving in sugar.

Ripe Currants are excellent food for children. Mash the fruit, sprinkle with sugar, and with good bread let them eat of this fruit freely.

Blackberry Jam.—Gather the fruit in dry weather; allow half a pound of good brown sugar to every pound of fruit; boil the whole together gently for an hour, or till the blackberries are soft, stirring and mashing them well. Preserve it like any other jam, and it will be found very useful in families, particularly for children, regulating their bowels, and enabling you to dispense with cathartics. It may be spread on bread, or on puddings; instead of butter; and even when the blackberries are bought, it is cheaper than butter. In the country every family should preserve at least half a peck of blackberries.

To Make Senna and Manna Palatable.—Take half an ounce, when mixed, senna and manna; put in half a pint of boiling water; when the strength is abstracted, pour into the liquid from a quarter to a half pound of prunes and two large tablespoonfuls of West India molasses

stew until the liquid is nearly absorbed. When cold it can be eaten with bread and butter, without detecting the senna, and is excellent for children when costive.

DISCIPLINE OF CHILDREN.—Children should not be allowed to ask for the same thing twice. This may be accomplished by parents, teacher, or whoever may happen to have the management of them, paying attention to their little wants, if proper, at once, when possible. Children should be instructed to understand that when they are not answered immediately, it is because it is not convenient. Let them learn patience by waiting.

Biting the Nails.—This is a habit that should be immediately corrected in children, as, if persisted in for any length of time, it permanently deforms the nails. Dipping the finger ends in some bitter tincture will generally prevent children from putting them in their mouth; but if this fails, as it sometimes will, each finger end ought to be encased in a stall until the propensity is eradicated.

CROUP.—This is a dangerous disease. It is common to infancy, and rarely occurs to adults. It is an inflammation of the larynx, trachea, and contiguous tissues. It derives its name from the peculiar sound of the voice and breathing, being of a whistling or crowing character, owing to a contraction of the glottis. It generally commences with a common cold and catarrh, hoarseness, cough, and increased difficulty of breathing, and the crowing already spoken of. It demands prompt treatment.

The great object is to diminish the inflammation and irritation, and to relax the spasmodic state of the muscles in the parts diseased. The vessels in those parts are overcharged with blood, by an imperfect action of the exhalents. Place the feet in warm water, and give an *emetic*. After bathing, rub the legs and feet well with flannel. Then give a vapor bath, if the patient can bear it. (See "Emetic Powder" "Expectorant Tincture.") Repeat the process, if needful. The perspiration will be greater by applying to the feet and each side hot bricks, and wrapped in flannel saturated with vinegar and a little water. At the same time give an aperient to produce a free action on the bowels. Apply this tincture to the throat, viz.: Half a tea-spoon of cayenne pepper; nearly a cup of vinegar; simmer ten minutes, and strain. This tincture may be diluted with warm water, according to the strength of the patient. Rub it well on the throat for five or ten minutes; and next saturate a flannel with it, and apply it to the throat. This application tends to relieve the internally congested blood-vessels. Repeat the application, as necessary.

Mustard plasters may be applied to the feet, the upper part of the chest, and between the shoulders, alternately. It has been recommended to steep hops in hot vinegar, and the patient to inhale the vapor. Even a large sponge dipped in as hot water as the hand can bear, squeezed half dry, and renewed before it is cool, is of great advantage. Keep the atmosphere of the room at a regular temperature. Aid the perspiration by warm drinks, as balm tea, etc.

To prevent a return of this disorder, keep the child warm, avoid wet feet, cold, damp, easterly winds, etc. Children whose constitutions dispose them to croup, ought to have their diet properly regulated, and be kept from all crude, raw, and trashy fruits.

CHICKEN-POX.—This is a mild, eruptive disease, and seldom occurs more than once in a person's lifetime. The eruption is attended with but little indisposition. There is a slight chilliness, weariness, cough, fever, bad appetite, etc., a day or two before the eruption ap-

pears, which resembles the small-pox. Treatment is simply plenty of cooling drinks acidulated, some cooling and aperient medicine, to keep the bowels gently open. Let the patient also be kept warm, till the pox die away.

WHOOPING-COUGH.—Dissolve a scruple of salt of tartar in a quarter pint of water; add to it 10 grs. of cochineal; sweeten it with sugar. Give to an infant a fourth part of a table-spoon four times a day; two years old, half a spoon; four years, a table-spoon. Great care is required in the administration of medicines to infants. We can assure paternal inquirers that the foregoing may be depended upon.

Whooping-Cough.—Use the cold bath daily. Or, rub the feet thoroughly with hog's lard, before the fire, at going to bed, and keep the child warm therein. Or, rub the back at lying down with old rum. It seldom fails. Or, give a spoon of the juice of pennyroyal, mixed with brown sugar-candy, twice a day.—*Wesley.*

Whooping-Cough.—Dissolve 1 scr. of salt of tartar in ¼ pt. of water; add 8 drops of laudanum; sweeten it with sugar. Give to an infant 1 tea-spoon four times a day; two years old, 2 tea-spoons; for four years, 1 table-spoon. Or, take flower of Benjamin, and strained opium, of each, 2 drs; camphor, 2 scrs.; essential oil of anise-seeds, ½ dr.; rectified spirit of wine, 1 qt.; powdered licorice, 4 ozs.; and honey, 4 ozs. Digest and strain. Or, take of musk julep, 6 ozs.; paregoric elixir, ½ oz.; volatile tincture of valerian, 1 dr. Mix, and take 2 spoons three or four times every day. Or, take ipecacuanha, 14 grs.; warm water, ½ pt. Infuse. Take a tea-spoon now and then.

Whooping-Cough, Embrocation for.—Olive oil, 8 ozs.; oil of amber, 4 ozs.; oil of cloves, sufficient to scent it strongly; croton oil, 3 drops; mix; rub on the chest. Or, oil of amber, and spirits of hartshorn, equal parts. Mix. Apply to the soles of the feet, and to the palms of the hands, morning, noon, and night.

Roche's Embrocation for Whooping-Cough.—Olive oil, 2 ozs.; oil of amber, 1 oz.; oil of cloves, 1 dr. Mix. To be rubbed on the chest at bed-time.

MUMPS.—This disease, almost exclusively confined to children, consists of an enlargement of the lymphatic and salivary glands of the neck, constituting what among medical men is know as *cynanche parotideæ*. The swelling generally takes place near the angle of the lower jaw, and where it is articulated with the upper jaw, and sometimes causes such an enlargement that the distended gland hangs down like a bag; in general, however, the glands are only partially distended, though by their pressure on the tonsils they cause both difficulty of swallowing and partial deafness. Mumps is generally attended with a degree of inflammatory fever, and when severe, is accompanied with shortness of breathing, hot skin, and other febrile symptoms. Sometimes the swelling suddenly disappears, as in gout, and makes its appearance upon some other part of the body; this is regarded among medical men as an unfavorable symptom.

The TREATMENT of mumps, in the simple and most general form, consists in fomenting the neck with a hot bran poultice, rubbing into the swollen glands hartshorn and oil, or camphorated oil, twice a day for five minutes at a time, and applying the hot poultice directly after using either of the above liniments. As mumps almost always arises from irregularity in the child's system, or from cold, it is always necessary to give some aperient medicine. For children under six years of age, a few spoons of infusion of senna and manna will generally

be sufficient for the purpose, especially if the dose is repeated for two or three times. When the child's age exceeds six years, it will be necessary to give something more constitutionally effective, such as one, two, or if necessary three of the following powders:

Take of powdered jalap, scammony, of each, 24 grs.; cream-of-tartar, 1 dr.; mix thoroughly, and add grey powder, antimonial powder, of each, 12 grs. Mix, and divide into 6 powders; one to be given every morning, or every second morning, according to their effect on the bowels.

Mumps.—This is a disease of the salivary glands, which are situated on each side of the lower jaw. It generally comes on with cold shiverings, sickness, and vomiting, pain in the head, succeeded by swelling of one or both sides of the neck, and sometimes becomes very painful, and so large as to impede the breathing, and the swallowing. It generally increases till the fourth day, and then declines.

In this complaint, little medicine is required. Give an aperient. Bathe the feet frequently in warm water. At night give the diaphoretic powder or decoction. Bathe the swelling with warm water and tincture of myrrh, and thirty drops of laudanum; or apply flannels dipped in the mixture. Cover the swelling with flannel. In extreme cases, give the vapor bath and the composition powder. Should the swelling break, apply a slippery elm poultice, made with milk and water; then apply the black salve for healing, or the green ointment.

MEASLES, an Eruptive Disease.—It is indicated by chilliness, shivering, pain in the head, fever, sneezing, discharges from the nose, sickness, and sometimes vomiting, hoarseness, cough, heaviness of the eyes; the eyelids frequently swell so as to cause blindness, the patient complains of his throat, and a looseness often precedes the eruption. The third or fourth day an eruption, like flea-bites, appears in the face, neck, and breast, and soon after in the body and limbs; the eruption does not suppurate. But the spots soon run into one another, and form red streaks, giving to the skin an inflammatory appearance, and produce a perceptible swelling on the face. The eruption may be distinguished from the small-pox by their scarcely rising above the skin. The fever, cough, and difficulty of breathing, instead of being removed by the eruption, as in the small-pox, are rather increased; but the vomiting generally ceases.

About the sixth or seventh day, and sometimes earlier, the eruption begins to fade, and gradually disappears, accompanied with a separation of the skin in the form of scales. But the other symptoms sometimes remain for a considerable time, and require care, warmth, and appropriate medicine.

In the malignant measles, the eruption appears more early, and all the symptoms, just described, in an aggravated form. The mouth and throat assume appearances. The mouth and throat appear as if they were ulcerated, and the fever is of a typhus kind, and symptoms of putrescency appear; also petichiæ, or purple, livid spots, a pain in the head and eyes, difficult respiration, no expectoration with the cough, an inflammatory affection of the lungs, feeble but rapid pulse, delirium, and oft a violent looseness; these are very unfavorable symptoms. Such as die of the measles, generally expire about the ninth or tenth day from the first attack. The most favorable symptoms are a moderate looseness, a moist skin, and a plentiful discharge of urine.

This disease is very infectious; often prevails epidemically, however; and the constitution that has been once under its influence is

seldom or never liable to a second attack, especially if the first attack was a mild one.

TREATMENT.—At the commencement of the disease, no animal food must be taken, the patient must be confined to a low, spare diet, as gruel, sago, etc., and for common drink, barley-water, acidulated with lemon-juice. The bedroom should be kept moderately cool, regulating the temperature thereof by the feelings, guarding against any sudden change, and especially exposure to cold draughts.

When the attack is of a mild character, little medicine is wanted. Perhaps the less we interfere with the efforts of nature the better. It would be extreme folly to deplete the system by active treatment. In mild cases, nature, a *little* assisted, generally effects a cure. But when the symptoms are of a sterner character, active means must be used. Place the feet in warm water, in which dissolve a little carbonate of soda, two or three times a day. Give a mild emetic (as the emetic tincture). Give also the aperient for children. Should the fever be very high, give the following febrituge mixture: Sub-carbonate of potash, 2 drs.; purified nitre, 30 grs.; camphor mixture, 6 ozs.; mix in a strong infusion of saffron. This mixture is designed to determine the eruption to the surface. Or, the following infusion will be very effective, and it should be given as soon as possible after the emetic: Saffron, 2 parts; Virginia snake-root, 1 part; infuse rapidly, or make a tea; sweeten and give warm, as much as the stomach will bear. If the eruption is slow in appearing, or only partially appears, or recedes, give the sudorific drops, warm milk sweetened, or strong balm tea with a little saffron infused. A bottle of hot water or a hot brick wrapped in a cloth, saturated with vinegar and water, or a vapor bath made of the decoction of bitter herbs, will be found most efficient. When the eruption is prominent, little more medicine is required. A little of the composition powder may be given occasionally. Sponge the body from the first, now and then, with warm lye-water and a little carbonate of soda. Wash the eyes with very weak brandy and water; or with slippery elm bark and a solution of borax.

If the cough is severe, attended with impeded breathing, apply a mustard plaster to the chest, and repeat, if necessary; and give the expectorant syrup or tincture; or inhale the steam of warm water, in which 30 or 40 drops of laudanum have been introduced. If the head is affected, continue to bathe the feet in warm water. Should there be much restlessness and pain, give the diaphoretic powder, or decoction. From the first attack of the measles, keep the bowels regular. A voluntary looseness indicates a favorable crisis; and, if moderate, it should not be checked. When it is very severe, it should be checked by some mild astringent; as, an infusion of raspberry leaves; or an infusion of raspberry leaves and a few drops of laudanum. Should the system be much debilitated, with a tendency to putrescency, the strength should be supported with cordials, beef tea, calf's-feet jelly, and an infusion of Peruvian bark in port wine. Give also an infusion of malt with *two table-spoons* of yeast to a quart of the former, in order to neutralize the putrescence indicated by purple spots, etc.

Patients recovering from the measles should not expose themselves too soon to the cold air. The food ought for some time to be light, and the drink diluting. Cooling lenitive medicines are essentially necessary after this disease, to carry off the remaining disposition to inflammatory affection of the lungs. Through every stage of the disease, the state of the lungs must be carefully regarded, for it is from the effect on them that the danger of the measles in most cases depends.

It is necessary also to give tonic bitters for the recovery of the former strength, to breathe a pure air, and if the lungs will bear it, and the weather suitable, to take gentle open air exercise.

RICKETS.—A disease almost peculiar to childhood, depending upon the *want* of a due proportion of the mineral salts in the blood, in consequence of which impoverished state the bones in a growing child are deprived of their proper amount of earthy ingredients, becoming consequently soft and pliable, instead of being naturally firm and resistant.

Though properly a constitutional disease, rickets is regarded as a local evil, simply because its effects are chiefly seen in the bones of the legs or arms. We have explained, under the head of "Bone," and elsewhere, that if a bone is immersed for a few days in a mixture of muriatic acid and water, all the earthy salts will be extracted from its structure, and a substance like gutta-percha, of the exact shape of the bone, only capable of being bent, doubled up, or extended, like Indian rubber, will remain. Such a condition, more or less supple, according to the amount of earthy matter contained in the cells of the organ, is the state of the bones in rickets, which, being deprived of their resistant properties, become unable to bear the weight and pressure of the body, give way, and are easily bent, twisted, or deformed.

The CAUSES of rickets, though generally attributed to bad nursing, bad food, imperfect ventilation, and want of cleanliness, must be looked for in the constitution of the parents or that of the child, showing a want of those earthy particles or mineral salts which, under the head of "Food," we have shown are so necessary to the health and stamina of the body. Defective assimilation of food is the professional term given as an explanation of the cause of this disease; the meaning of which is, that there is a deficiency of phosphate of lime, either in the food taken or in the system.

The SYMPTOMS of rickets are more passive than positive, and show themselves rather by their local than by their constitutional characters. The general effects, however, are a softness and flaccidity of the muscles of the body; a sallow, anxious countenance; a distended or tumid state of the abdomen, with turbid state of the urine, and though the appetite is good, the child gradually loses flesh and strength. The teething process is slow and imperfect, and the teeth, when formed, quickly decay, become loose, or fall out; the *epiphyses*, or extremities of the long bones, become spongy and swollen, the disease first showing itself at the wrists and ankles; and as the mischief advances, the long bones gradually give way, and bend under the weight of the body, and become twisted, and often most grotesquely deformed, by the action of the muscles, which, straining in contrary directions, produce that malformation which is generally understood by the name of rickets. In ordinary cases the legs only are deformed—bent out or inwards, or twisted in many forms; but in severe cases the bones of the spine also become softened, the vertebræ of the shoulders (dorsal) are displaced, producing a hump, while the breast-bone is thrown forward, forming what is called a pigeon-breast. The mental faculties do not generally suffer with the physical debility, but often shine out with unusual precocity and vigor.

TREATMENT.—As the cause of this disease is an absence of the mineral salts, the natural remedy for the case would seem to be to give the system those salts of which it stands in need, namely, the phosphates of lime and soda. The cure, however, cannot always be effected by these means alone, though given in constantly repeated doses; the

restoration to health can only be attained by a steady and gradual system of dietetics and regimen. The first indispensable requisite is change of air, and, if possible, to the sea-side; the use of cold salt-water baths; a daily friction with the hand, night and morning, for at least ten minutes each time, along the limb or part most affected; an abundance of milk, and a full and rich diet—animal and vegetable—with fruit; the patient in this instance being enjoined to eat the rind or skin as well as the fruit, and when the digestion is good, water-cresses, radishes, salad, and any crude vegetable in which the mineral salts are in their natural abundance. Next in importance to fresh air, cold baths, friction, and abundance of food, rest in the horizontal position is absolutely necessary, the child never being allowed to stand, or bear any weight on its limbs, unless supported by splints and bandages, precisely the same as for a fracture, the limb, especially if it is the leg, being well rubbed, either with the bare hand or with a little lard or sweet oil.

Though the diet and regimen are the chief agents required in the treatment of rickets, some medicine is necessary, and of that we shall now proceed to speak. In the first place, cod-liver oil, on account of the nitrogen or animalizing principle it contains, has been greatly recommended in this disease, and there can be no doubt that in cases of much debility it may be given with very great effect. The chief dependence, however, must be placed on the stimulating and tonic properties of iron, as prescribed below, with the saline powders following:

Take of steel wine, 2 ozs.; syrup of saffron, 2 fdrs.; mint water, sufficient to make a four-ounce mixture. Mix, and or a child under *two* years, give ½ a tea-spoon every six hours; for a child between *two* and *six* years, 1 tea-spoon three times a day; and for a child between the ages of *six* and *ten* years, 1 dessert-spoon in water every eight hours.

Take of phosphate of lime, 2 drs.; phosphate of soda, 2 drs. Mix, and divide into 12 powders. One to be taken, dissolved in a little water, three times a day, for a child between *six* and *ten* years old; to all patients under *six*, *half* of each powder, dissolved in water or milk, is to be given two or three times a day.

Care must be taken with female children affected with rickets, to prevent, if possible, any malformation of the bones of the pelvis or hips, by keeping the child from running about, so as to ward off any undue weight on the bones of that part, and in all cases anticipating any malformation as far as possible by rubbing the limb, and applying splints to keep the bones from the action of the muscles.

Children who are old enough to eat raw vegetable matters should be given an abundant supply of such articles as lettuce, endive, young onions, watercresses, raisins, grapes, apples, gooseberries, with a due proportion of animal food, with plenty of bread, rice, potatoes, and milk frequently in the course of each day. This, with change of air, salt-water bathing, and friction, will, if persevered in for a sufficient time, effect a perfect cure, by invigorating the constitution, and giving it back the salts or which it has been previously deprived.

NAVEL.—The center of the body in a full grown nine-months child, and, in the fetus, the opening through which the navel string passes from the liver of the child to the placenta or after-birth of the mother. The navel-string, umbilical cord, or *funis*, as this important part is differently called, is composed of a series of vessels—an artery, vein, nerve, and lymphatic tube—all loosely twined, like the strands

or a rope, round each other, and varying in length from one to two feet.

It is through the medium of the navel-cord that arterial blood and nervous power from the mother is carried to nourish the fetus, and the venous blood and impurities brought from it. The cord is sometimes every inch or so doubled upon itself in the form of a series of knots; this is a provision to allow of greater extension, without incurring the risk of making the cord tense.

With some children the navel-cord is remarkably short, and neither knotted nor twisted; when such is the case, it is certain to delay the labor very materially, and add considerably to the maternal pains, the shortness of the string preventing the head from descending freely, though the contractions of the uterus are strong, and no other impediment existing. After the birth of the child, and the new circulation has been established in the infant, the navel-cord is tied about two inches from the body, and then divided; in the course of a week or fortnight the fragment left sloughs or drops off, leaving, when it has been properly attended to, that closed but indented cavity know as the navel.

PUBERTY.—The age of supposed virility in males, and of womanhood in females. The word is derived from the name of a part of the body, and the first appearance of hair on the face. The exact age of puberty differs in different countries, and even in individuals, being earlier in warm climates than it is in cold ones. In this country, from 14 to 16 is the general age at which puberty commences in males, and from 12 to 14 in girls. It is a critical period with either sex, and care should be taken that at such an age no vices are contracted which may lay the seeds of after mischief.

RINGWORM.—The head is to be washed twice a day with soft soap and warm soft water; when dried, the places to be rubbed with a piece of linen rag dipped in ammonia from gas tar; the patient should take a little sulphur and molasses, or some other gentle aperient, every morning; brushes and combs should be washed every day and the ammonia kept tightly corked.

OINTMENT FOR SCURF IN THE HEADS OF INFANTS.—Lard 2 ozs.; sulphuric acid, diluted, 2 drs.; rub them together, and anoint the head once a day.

SNUFFLES.—A troublesome complaint, to infants especially. The mucous membrane of the nose, through the taking of cold, being much swollen, the child is no longer able to breathe through its nose, as it was accustomed to do, but is compelled to breathe through the mouth. The difficult breathings are attended by a peculiar snuffling noise, which, in sleep, becomes a regular loud snore. It often interferes with its sucking at the breast; and as soon as it seizes the nipple a threatening suffocation compels it to desist.

While this complaint lasts the child may be partially fed with the spoon; give it a very mild purgative; bathe its legs frequently in warm water. Rub the nose with tallow, and apply a slippery elm poultice mixed with cream.

SQUINTING.—Squinting frequently arises from the unequal strength of the eyes, the weaker eye being turned away from the object, to avoid the fatigue of exertion. Cases of squinting of long standing have often been cured by covering the stronger eye, and thereby compelling the weaker one to exertion.

SCRATCHES.—Trifling as scratches often seem, they ought never to be neglected, but should be covered and protected, and kept clean

and dry, until they have completely healed. If there is the least appearance of inflammation, no time should be lost in applying a large bread and water poultice, or hot flannels repeatedly applied; or even leeches in good numbers may be put on, at some distance from each other.

SCALD (SCALLED) HEAD.—An eruptive disease of the scalp; a scaly or scabbed head. In this disease the head is completely covered with scabs and sores, which usually break out in scrofulous children when the child is teething.

The SYMPTOMS of this disgusting disease commence with large, soft patches, slightly flattened, with irregular margins, and slightly inflamed bases. Patches of the pustles, which are numerous, unite and form crusts or scabs, which in time constitute a dense continuous covering over the entire head. A profuse acrid discharge soon after follows, most offensive to the nostrils, in which vermin are quickly generated; the hair is matted together with scabs, and the whole head filthy in the extreme.

The TREATMENT consists in first shaving the head, and washing the scalp with soap and water, applying every night a little of either of the following ointments, washing the head in the morning clean from all grease, lightly dusting the scalp with violet powder, and giving one of the powders prescribed below every morning.

Ointments.—Take of spermacetl cerate, 1 oz.; cresote, 40 drops Mix.

Take of citron ointment, 1 dr.; spermaceti cerate, 7 drs. Mix with a bone spatula.

Powders.—Take of powdered rhubarb, 24 grs.; grey powder, 18 grs.; precipitated sulphate of antimony, 12 grs. Mix.

Divide into twelve powders for a child from one to two years old, into nine powders for a child from two to three years; into six for a child from three to six years of age. One powder to be given every morning in each instance. From 10 to 20 grains of powdered sarsaparilla may also be given twice a day.

Scald Head.—This affects the heads of children chiefly. The scabby eruptions at the roots of the hair are very disagreeable. It is a very obstinate and infectious disease. First, cut off all the hair and wash the head night and morning with warm soap suds, and afterwards bathe with tincture of blood-root. Then apply the brown ointment, once a day. Give the patient sulphur and cream-of-tartar in molasses, so as slightly to open the bowels. A poultice of dock roots is very useful.

Scald Head.—Anoint it with Barbadoes tar. Or apply daily white wine vinegar.

If wood soot is mixed with fresh butter into an ointment, and the head anointed with it every day, it will generally cure it at the beginning; but when it is become very bad, a plaster should be made of gall dried to the consistence of salve, and spread upon linen. This should be applied all over the parts affected, and continued on four or five days; then it should be taken off and the head dressed with soot ointment as before. After the cure, give two or three gentle purges.

If a proper regard was paid to cleanliness in the head and apparel of children, the scald head would be seldom seen.—*Wesley.*

SCARLATINA, OR SCARLET FEVER.—It derives its name from the color of its eruptions. It is a disease of infancy, and seldom attacks adults. It never attacks the same person twice. It begins with chilliness and shiverings, langor, and depression of spirits, a dry skin,

and pains in the head; and soon the whole skin becomes covered with specks, or minute inflammations, larger and redder than those of the measles. In two or three days, they disappear, succeeded by scalings of the scarf skin, like bran dispersed over the body, which fall off and appear again two or three times successively. This disease is sometimes of a more malignant type, tending towards putrefaction. It is attended with severe sore throat; the uvula, and all the back part of the throat are very red, painful and swollen, and the swallowing much impeded, or rendered nearly impossible. It is often attended with delirium, the spots become black; the disease becomes dangerous. Scarlatina is infectious.

TREATMENT.—If the disease is of a mild character, little more is required than to observe a cold diet, and to avoid cold air, and cold drinks. If the body be costive, give an aperient. If the fever be high, give the saline mixture, which see. Take a small cupful at a time. Barley water, acidulated with tamarinds, or lemon-juice affords a good beverage. Give also the Sudorific Powder. Emetics will be useful as soon as the disease begins. The emetic powder should not be neglected. Bathe the feet in warm water, and give saffron tea. Drink balm tea frequently.

Scarlet fever is caused by some morbific matter taken into the circulation by the lungs; and the increased action in the system is a healthy effort of nature to expel such morbific matter. Nature therefore must be assisted; or if her efforts are too great, she must be restrained. It is not always necessary to give the emetic powder; but if there be soreness of the throat, and much phlegm, hindering the breathing, the powder will have a good effect, abating the febrile symptoms, curing the disease, or rendering the attack light. Mr. Stephens asserts that he gave the following mixture in 400 cases, after they had assumed the most alarming appearance, the majority of which it cured; viz: Cayenne, a tablespoonful; common salt, 1½ teaspoonfuls. Beat into a paste, and pour upon it a pint of boiling water; to stand an hour; then add half a pint of good vinegar. A tablespoonful of the mixture every hour. Do not neglect to give an aperient that will cleanse the stomach and bowels. Castor oil, and salts and senna, or senna and manna, are appropriate purgatives.

It is very good to bathe the surface with warm soft water, to which has been added a little lye. Some have recommended ablutions of cold water; but they should not be adopted except where the heat of the skin is great, and where perspiration is absent. It often moderates the subsequent symptoms. But no dangerous reaction takes place from tepid as from cold water, nor will any danger whatever result from it, as it is a most valuable auxiliary, and the use of it cannot be too highly recommended. If the throat be sore, and the swallowing difficult, foment it with the rheumatic liquid. Gargle, as in sore throat. The diaphoretic powder will have an anodyne influence, and should not be neglected.

Should the disease assume the malignant type, give immediately the vapor bath of bitter decoction, and emetics, and doses of the cayenne and salt mixture, as just mentioned; it may be made a little stronger. If putrid symptoms appear, give yeast mixed with honey and milk. Also gargle with it; and apply yeast poultices to eruptions run into a sore. Let the room in which the patient is confined be well ventilated, and of a proper temperature; but keep away cold air from him by all means.

In the beginning of the disease, the diet should be light and easy

of digestion. Diluents should be freely taken, as balm tea, barley gruel, etc., with a squeeze of lemon in them. If there is debility, let the food be nutritious, as beef tea, jellies, arrow-root, sago, rice milk, and a little wine. During recovery avoid exposure to cold; keep the skin clean by tepid ablutions, and occasionally bathe the feet in warm water at bed-time. Apply friction to the whole body as much as the patient can bear. Give the tonic bitters, also the composition Powder.

Belladonna has been found to render persons unsusceptible of the fever, in places where it is raging. It is to be given in extract,—the twentieth part of a grain morning and evening.

SCARLATINA AND MEASLES.—Dr. Witt states that sesquicarbonate of ammonia is an antidote to scarlatina and measles. "The dose in these complaints varies from 3 to 10 grains, according to the age of the patient, given at longer or shorter intervals, according to the mildness or severity of the attack. The suitable dose dissolved in as small a quantity of cold water as will admit of its being swallowed with as many grains of loaf sugar, merely to make it palatable, is all that is required. Any admixture with other medicines, as salines, bark, etc., and all acidulous drinks, are to be avoided. The preliminary treatment is also simple; from half a grain of calomel, for children, to five grains for adults, should be placed on the tongue and swallowed. About an hour after, the first dose of the ammonia is to be given, and repeated every three or four hours, as long as the disorder takes the favorable course. If the disorder increases in violence, the medicine must be given every two hours, or every hour, or sometimes even more frequently, till the graver symptoms are subdued This medicine has been found to possess similar powers over diphtheria."

THRUSH.—An affection peculiar to young children, during the period of teething. It is an affection of the mucous membrane of the mouth. It appears in small white ulcers upon the tongue, gums, and around the mouth. If not mild it may extend to the whole of the alimentary canal, from the mouth down to the anus, attended with flatulency, purgings, etc. In this severe form it often terminates fatally. Sometimes the inside of the mouth becomes so raw and sore, as to make it painful to take nourishment. Elderly people, and persons with debilitated constitutions, are liable to this complaint.

Attention should be paid to the state of the general system, especially to the stomach and bowels. An emetic is often of great service. Give also a gentle aperient. Small doses of magnesia, and the use of lime water will be of great service in removing the acid from the stomach and bowels. The neutralizing mixture diluted may be given till the bowels are acted upon. Make a decoction of sage and hyssop, add a little borax, and wash the affected parts with it. Let it be sweetened. A solution of burnt alum has been recommended; or apply it pulverized.

TONGUE-TIED.—This is a term used when a child is unable to move its tongue in such a manner as to make a perfect vacuum of its mouth when grasping its mother's nipple. When the tongue has free motion, and with the lips grasps the nipple firmly, the vacuum made is complete, and the nipple being pulled out, the milk flows into the infant's mouth; when, however, the motion of the tongue is confined, the infant is unable to secure the organ for any time, the vacuum is imperfect, and only occasional driblets of milk are drawn from the breast; the child, in petulant irritation dropping the nipple and throwing back its head, expresses its disappointment in querulous

vies. It is very seldom that this defect arises from muscular deficiency or natural malformation; the cause, in nine out of ten cases, depending on the lining membrane, where it forms a fold under the tongue, and which, being attached almost to the tip of the organ, thus binds it down by the bridle, as it is called, or the frænum, preventing all but the most limited motion. In such a case the TREATMENT is very simple, and the cure instantaneous; it consists in merely passing the limb of a sharp-pointed pair of scissors through the thin skin below the tip of the tongue, as near the external margin as possible, and nipping it apart. To do this simple operation safely and properly the nurse should hold the child on her lap, and the surgeon, seated before her, should place the back of the infant's head between his knees, and, making the child cry, watch his opportunity to transfix the mucous membrane, and cut the mere thread of membrane *outwards*, and then place the child to the breast, its steady drawining of the nipple being the best evidence of the success of the operation. As the renal artery and vein are in close proximity, the operator must be careful that he does not transfix or wound either. At the same time he must be careful not to credit every mother or nurse's assertion that a child is tongue-tied till he has satisfied himself by examination, and by putting his finger into its mouth, that the infant is unable to grasp with its tongue.

TEETHING.—Young children, whilst cutting their first set of teeth, often suffer severe constitutional disturbance. At first there is restlessness and peevishness, with slight fever, but not unfrequently these are followed by convulsive fits, as they are commonly called, which depend on the brain becoming irritated; and sometimes under this condition the child is either cut off suddenly, or the foundation of serious mischief to the brain is laid. The remedy, or rather the safeguard against these frightful consequences, is trifling and safe, and almost certain, and consists merely in lancing the gum covering the tooth which is making its way through. When teething is about it may be known by the spittle constantly drivelling from the mouth and wetting the frock. The child has its fingers often in its mouth, and bites hard any substance it can get hold of. If the gums be carefully looked at, the part where the tooth is pressing up is swollen and redder than usual; and if the finger be pressed on it the child shrinks and cries, showing that the gum is tender. When these symptoms occur, the gum should be lanced, and sometimes the tooth comes through the next day, if near the surface; but if not so far advanced the cut heals and a scar forms, which is thought by some objectionable, as rendering the passage of the tooth more difficult. This, however, is untrue, for the scar will give way much more easily than the uncut gum. If the tooth do not come through after two or three days, the lancing may be repeated; and this is more especially needed if the child be very fractious, and seems in much pain. Lancing the gums is further advantageous, because it empties the inflamed part of its blood, and so relieves the pain and inflammation. The relief children experience in the course of two or three hours from the operation is often very remarkable, as they almost immediately become lively and cheerful.

VAC INATION.—Is artificially inducing in the human body the disease known as cow-pox, professionally called *vaccina* or *vacciola*, and is effected by inserting a portion of the lymph or *virus*, taken in the first instance from a cow (in which animal the disease arises spontaneously), into some part of the patient's body, the object being to preserve the person so treated from the infection of small-pox. The value

of this discovery (which enables the physician, by inducing a mild and benign disease into the system, to avert from the body a foul and pestilential one; or, should it arise, to rob it of its worst symptoms and nearly all its danger,) is now so universally known and recognized, that it is only necessary for us to remind the reader that this great blessing was conferred on humanity toward the end of the last century by Dr. Jenner. Vaccination was for a long time considered a perfect specific against small-pox, and the blood once influenced by the lymph of cow-pox would, it was supposed, ever afterward repel the disease of small-pox, however the patient might be exposed to its infection. Experience, however, has proved this to be a fallacy, and that persons, although twice vaccinated, may be attacked by the dreaded disease. It is, however, satisfactory to know that after vaccination, small-pox, if it should occur, is always mild, seldom pits the skin, and is never dangerous.

To insure the full benefit of vaccination, the patient should be in perfect health at the time, and the lymph used perfectly fresh; and, if convenient, taken from an arm at the time of using. A couple of superficial scratches should be made by a lancet in the arm, about half an inch apart; the surgeon should then load the point of his lancet with the fluid lymph, and insert it in each of the abrasions or scratches, exciting the vessels to absorb the lymph by slightly scraping the part with the point of the lancet, care being taken not to induce bleeding—a mere redness, excited by scraping away the scarf-skin, is all that is necessary. On the second day the vaccinated parts appear red, as if about to fester; on the fourth day the places have become defined spots; and by the end of the fifth day assume the appearance of vesicles, surrounded by a bright pink areola; about the eigth day the vesicles attain their maturity, being circular in form, and about an inch in diameter, with a flat top, and a slight depression in the center; about the ninth day a slight degree of fever takes place, but only lasts for a few hours (this febrile action is similar to the secondary fever of small-pox). The pustule should be opened upon the ninth day, and the lymph, if not required for immediate use, collected on small square pieces of glass, or taken up on small slips of bone called points. A little magnesia and rhubarb, or an aperient powder, should be given when the pustule is opened, and if the arm is red and inflamed, a warm poultice applied for a few hours will relieve it. In general it is the twenty-first day before the pustule completely desquamates and the areola disappears, leaving a small depression or pit on the skin, which usually remains for life. A vesicle generally appears above each place where the vaccine lymph has been inserted, which from the third to the fifth days has a clear, pearly appearance, becoming opaque as the contents advance to maturity. The pustule should always be opened by the ninth day and before suppuration takes place. Some persons vaccinate on both arms, making two or three punctures on each; this is unnecessary, two places on one arm being sufficient, and these must be so far apart that there can be no fear of their running together. In some constitutions the efficacy of the lymph lasts for life, in others the protective influence passes off in a few years; on this account it has been deemed necessary to repeat the vaccination at the age of puberty. To arrest the spread of that dreadful pest, small-pox, the Government has established many sanitary and legislative enactments. When vaccination is performed from dry lymph collected on the glasses or bone points, the virus must be made moist by a drop of warm water before using.

ANODYNE FOMENTATION.—Take of white poppy-heads, 2 ozs.,

elder flowers, ½ oz.; water, 3 pts. Boil till one pint is evaporated, and strain out the liquor.

This fomentation relieves acute pain. If the affected part is very painful, add forty drops of laudanum, and thirty drops of tincture of cayenne.

ANODYNE PLASTER.—Melt an ounce of adhesive plaster, or diachlyon, and while cooling, add a drachm of powdered opium, and the same quantity of camphor, previously dissolved in a small quantity of olive oil. Spread this on leather. This soon relieves an acute local pain.

ANODYNE POWDER.—Opium, ½ oz.; camphor, 3 drs.; valerian, 1 oz.; cayenne pepper, 1 oz. Put the opium and camphor into a close bag; place it on the oven top to harden. Powder and mix. Take a quarter of a tea-spoonful at a time. Most valuable in colic, cramp and severe pains.

ANTI-BILLIOUS PILLS.—Extract of colocynth, 2 drs.; extract of jalap, 1 dr.; almond soap, 1½ drs.; guiacum, 3 drs.; tartarized antimony, 8 grs.; oil of juniper, 4 or 5 drops; oil of carraway, 4 drops; oil of rosemary, 4 drops. Form into a mass with syrup of buckthorn, and divide into pills.

ANTI-CHOLERA DROPS.—Tinctures of capsicum, opium, lobelia, essence of peppermint, of each, 1 oz. Mix. Take when needful, a tea-spoonful in a little coffee. Most efficient in cholera, and affections of the bowels.

ANTIMONIAL WINE.—This may be purchased at the druggists. As an emetic, the dose is from one to two table-spoonfuls. As a febrifuge, sudorific, or relaxant, from twenty to forty drops every three or four hours. As an emetic, ipecacuanha, and lobelia, stand very high, especially the latter.

ANTI-SPASMODIC TINCTURE.—Tincture of lobelia, 1 oz.; tincture of cayenne, 1 oz.; compound tincture of lady's slipper, ½ oz.; oil of anise-seed, 20 drops. Begin with a teaspoonful. This is an infallible remedy for spasms, fever, ague, and painful flatulence and colic.

ANTI-SPASMODIC CLYSTER.—To half a pint of thin gruel, add half an ounce, or an ounce of the fetid tincture, and forty to sixty drops of laudanum. This is very useful in spasmodic affections of the bowels, in convulsions, or in all hysteric complaints.

ANTS.—A small quantity of green sage, placed where ants infest will cause them to disappear. Quicklime thrown on their nests, and then watered, will destroy them. Or, a strong solution of alum water. Or, gas tar; or lime from gas-works. Gas tar painted round a tree an inch or two broad, will prevent ants and other insects from climbing trees, and will preserve the fruit.

APERIENT MIXTURE.—Senna leaves, 2 drs.; infuse in a quarter of a pint of boiling water, for half an hour, and add epsom salts, half an ounce; compound tincture of senna, an ounce. Three table-spoonfuls to be taken every three hours.

APERIENT ELECTUARY.—Senna, 1 oz. *powdered;* flour of sulphur, ½ oz.; ground ginger, 2 drs.; molasses, or honey, 4 ozs. Mix well. DOSE.—About the size of a nutmeg morning and night. If not strong enough, add a small quantity of jalap.

APERIENT FOR CHILDREN.—Infusion of senna, 1 oz; mint water, ½ oz.; calcined magnesia, 1 scr.; manna, 3 drs.; syrup of roses, 2 drs.; (a solution of sugar will do). Mix and give in doses of one or two teaspoonfuls at a time.

APERIENT FOR INFANTS.—Take of rhubarb, 5 grs.; magnesia, 8 grains; white sugar, 1 scr.; manna, 5 grs.; Mix. Dose.—Varying from a piece half the size of a sweet-pea to a piece the size of an ordinary pea.

APERIENT MIXTURE—Abernethy's.—Epsom salts, ½ oz.; infusion of senna, 6 drs.; tincture of senna, 2 drs.; spearmint water, 1 oz.; distilled water, 2 ozs.; best manna, 2 drs. Mix; and take three or four tablespoonfuls every morning, or every other morning. This is a valuable mixture. A decoction of Peruvian bark will render it a tonic aperient.

APERIENT PILLS.—Compound rhubarb pill, 1 scr.; extract of colyocynth, ½ dr.; castile soap, 10 grs.; oil of juniper, 3 drops. Beat into a mass; make into *ordinary sized* pills. Take one at bed-time.

ALTERATIVES.—Medicines adapted to cure a disease without producing any very sensible effect on the human system.

Alterative Pills.—Lobella seeds, 2 drs.; mandrake, 2 drs.; blue flag, 2 drs.; blood root, 2 drs.; cayenne pepper, 1 dr.; gum guiacum, 2 drs.; extract of dandelion, 6 drs.; oil of peppermint, 3 or 4 drops; simple syrup to form into pills. Dose.—Two pills twice or thrice a day. These pills are of great service in bilious and liver complaints, diseased joints, boils, carbuncles, cutaneous eruptions, scrofula, syphillis, etc.

Alterative Syrup.—Tincture of cayenne, ¼ oz.; tincture of lobelia, and tincture of myrrh, of each, 2 ozs.; molasses, ½ lb. Mix. a teaspoonful two or three times a day. Noted for its effectual cure of cutaneous sores; *boils*, indigestion, and some chronic complaints.

BLOOD-ROOT—Sanguinaria Canadensis.—An American plant. It has great emetic and expectorant influence. It is tonic, narcotic, stimulant, emetic, according to the dose and form in which it is administered. In a large dose it produces nausea, etc. In small doses, it acts as a stimulant and tonic. Like digitalis, it calms the pulse. It is an invaluable remedy in diseases of the chest, lungs, and liver.

Dr. Beach says: "In plethoric constitutions, when respiration is very difficult, the cheeks and hands livid, the pulse full, soft, vibrating, and easily compressed, the blood-root has done more to obviate the symptoms and remove the disease than any other remedy used. It is most useful in bleeding at the lungs, influenza, whooping-cough, and croup. It should be given in quantity to cause vomiting."

Thirty drops of the saturated alcoholic solution, taken three times a day, cured a bad case of rheumatism in a gouty person. It is also a great benefit in asthmatic affections, scarlet fever, jaundice, and female obstructions. In water of the chest (hydrothorax), doses of 50 or 60 drops should be given, until nausea follows each dose. It is excellent in chest complaints, and excessive expectoration.

Externally, blood-root is a great healer of the worst sores, ulcers, ringworms, tumors, (and taken as snuff, of polypus); used as a powder, or as a wash. The roots are generally used; but the leaves have similar virtues. It is given in the form of syrup, extract, infusion, decoction, and tincture.

As an emetic it should be combined with lobelia. If infused in vinegar, its effects, as a wash, are more powerful in sores, ulcers, tetters, and ringworms.

Dr. Tully asserts that in the sub-acute form of inflammation, which often precedes a rapid phthisis, or consumption, the cure may, in general, be trusted to sanguinaria (blood-root) and opium, after the previous use of aperients. In confirmed phthisis, it is of more value,

he says, in combating and palliating symptoms, than any other remedy.

Dr. Stevens, of Ceres, (1850), has seen the most marked benefit result from it in *hæmoptysis* (spitting of blood). For this symptom it was employed by Dr. N. Smith, and others, with remarkable success, some years ago.

As an expectorant in the first and second stages, its action is said to be certain to arrest the cough and freely empty the bronchial tubes. In the second and third stages, it is a remedy of some importance, that can be relied on.

I gave it in three cases of that condition of body, preceding the deposition of tubercle, although there was cough, short and feeble inspiration, and a general phthisical aspect. In one, a girl of ten years, there was an hereditary predisposition, and many symptoms of phthisis in the first stage were present, but no physical signs of the disease. She had taken cod-liver oil and other remedies without benefit, and was extremely weak and emaciated. After attending to the secretions, I put her on the compound sanguinaria powder nightly, which permitted me subsequently to give her steel, and to resume the cod-liver oil. Her health improved; the cough diminished and disappeared; she gained strength and flesh, and was restored to perfect health. In a girl of ten years, with a sluggish liver, jaundice, cough, but no deposition of tubercle, the same good result ensued, although the time was longer.

In the first stage of phthisis, wherein actual deposition of tubercle was going on, with all the symptoms well marked, in which cod-liver oil alone was not agreeing, I have combined with it small doses of the compound sanguinaria powder twice a day, with relief to shortness of breath, and improvement of the general health; and all the improvement has been attributed by the patients to the sanguinaria.

In the second stage, the tincture in moderate doses may be combined with other expectorants with great advantage, and will assist other remedies to cure; whilst, in the third, the relief afforded in a ready expectoration and complete emptying of the bronchial tubes is really marvelous. The expectoration becomes more easy, the breathing clearer, the spasmodic efforts at coughing less; and much improvement will result for a time in the last stage of this malady. Some bitter infusion may be combined with the sanguinaria with decided good effect in the dyspepsia, or loss of appetite sometimes present. I believe the sanguinaria in moderate doses will be found a remedy of much service in the pretubercular and first stages of phthisis, either alone or combined with other substances; and that as an expectorant, in the second and third, it cannot be surpassed. It materially helps to prolong life, even in very hopeless cases.

Bronchitis.—In the chronic form, it is in general use all over this country, as one of the most active expectorants. Dr. Leonard observes, that its acrimony renders it powerful in removing the tenacious phlegm, and which it is our object to get rid of. Dr. Wood, of Philadelphia—a name honored in this country, and well known in Europe—recommends the tincture, among other remedies, as well adapted for this complaint, four to six times a day, kept just within the nauseating point. It is used extensively in the various hospitals in Canada, and is found truly valuable as a remedy. Its value in bronchitis I have known for some years, and have found it more serviceable than many other expectorants, and one that promotes the expulsion of mucus in such a manner as to afford very great relief, with a feeling of warmth and comfort to the patient.

Catarrh is much benefited by this remedy. Equal parts of the tincture and of paregoric were found by Dr. Tully to afford the most marked relief. It produces a warmth about the chest, which the patients find agreeable. It is much employed in cold in the head, promoting the discharge of mucus, and imparts a pleasing sense of warmth to the whole head. Dr. R. P. Stevens speaks highly of its virtues in this affection, combined with cloves and camphor, and taken as snuff. As a gargle it is very efficacious.

Asthma.—The paroxysms of asthma are much relieved by it. I gave it with advantage to a female aged 57, who had been asthmatic since the change of life in 1850, and who suffered from frequent diarrhea and dyspnœa, or difficult breathing. It completely dispelled an asthmatic cough in a female of 30, who had aborted a few weeks before. Among other cases, was a girl of 13, with hereditary asthma, and symptoms of stone in the bladder. She passed her water in bed, was fretful and irritable, and the urine was loaded with lithates. She rapidly improved under a suitable pectoral mixture and the compound sanguinaria powders, and in a little while was restored to perfect health. Its efficacy in asthma is confirmed by other observers, and amongst them may be mentioned Dr. Eberle, who speaks well of it. It is most valuable in whooping-cough. It should be combined with camphorated tincture of opium.

Croup.—Dr. Nathan Smith, and others, speak of it as a *sovereign* remedy in this disease. Dr. Bird recommends its use in the membranous stage, as an emetic, in the form of decoction. It expels the false membrane, and produces a stimulating effect upon the mouth and fauces. Dr. Barton pronounces it an excellent remedy in malignant sore throat, croup, and similar affections, in the form of an emetic and stimulating expectorant. Dr. Ives recommends it as highly useful in the first stage of croup, and must be given so as to produce vomiting. He observes, that many physicians have relied, for years, wholly upon it as a remedy for croup.

Diphtheria.—Of the three forms of this disease, the simple croupal, and malignant, it is in the two last that the sanguinaria will be found especially useful. In my own practice, I employ this substance as an emetic in the *croupal* form; it acts with energy, and produces a thrilling effect upon the entire mucous membrane of the fauces and respiratory tract, with a feeling of warmth. It, alone, seems to impart vitality to the suffering throat, and I recommend it with the very greatest confidence.

In the *malignant* form of diphtheria, besides the most active treatment, as hydrochloric acid to the throat, etc., a gargle, of a warm decoction of sanguinaria in vinegar, is invaluable.

Scarlatina.—Dr. Tully has used the decoction as a gargle with benefit, and Dr. Stevens, of Ceres, derived great benefit from full emetic doses of the decoction in the malignant form of scarlatina. It removes the morbid secretions of the mucous membrane of the stomach, œsophagus, and fauces, and tends to break up the morbific influence of the disease. In an epidemic of scarlatina, with symptoms of the most alarming character, Dr. R. G. Jennings, of Virginia, after the failure of almost everything else, including nitrate of silver, found gargles of the infusion of sanguinaria in vinegar most efficacious. They effectually cleansed the throat of viscid secretion, and afforded much comfort to the suffering patients, allaying all irritation.

Rheumatism has been treated by Professors Smith and Ives, in the acute form, with the tincture or decoction, given till its operation

upon the skin and system generally becomes manifest. Very many other physicians speak of its use in the chronic form. I have cured some cases of chronic rheumatism by the tincture and compound powder, In one, a female of 29, the subject of leucorrhea and rheumatism, all the pains disappeared in a fortnight, and even the leucorrheal discharge diminished.

Hepatic or Liver Diseases.—In the Southern States, yellow fever, jaundice, inactivity of the liver, etc., from the nature of the climate, prevails, but the sanguinaria has been found by Dr. Macbride, of Charleston, of utility in torpor of the liver, with colic and yellowness of the skin. Jaundice he submitted to frequent trials of the medicine with advantage. Dr. A. D. Wilson cured a case of enlargement of the liver and spleen in a girl of 16, by the tincture and extract. The evidence of its value in jaundice, is favorable by a host of careful American writers.

Amenorrhea.—It is an emmenagogue of some importance and power. Indeed, its first known use among the native Indian women was for this purpose. If the patient is plethoric and of full habit, large doses are necessary; and if combined with aloes, shortly before the usual monthly period, it will scarcely or never fail to produce menstruation.

Powder.—The usual dose of this as an emetic is from 10 to 20 grs. suspended in water. It is preferable sometimes to administer it as a pill, to avoid the irritation of the fauces. Dr. Leonard frequently combines it with ipecacuanha; the dose is from 1 to 5 grs., repeated according to the effect desired. Grain doses will produce a diaphoretic and expectorant effect; if given every one or two hours, it will then exert a sedative action, and reduce the frequency of the pulse.

Compound Powder.—Powdered blood-root, 2 scrs.; opium, powdered, 1 scr.; sulphate of potass, powdered, 7 scrs. Mix. DOSE.—From 3 to 15 grains. It is probably the least irritating of all the preparations.

The Powder of Sanguinaria with Camphor.—Take of sanguinaria, powdered, 1 scr.; powdered camphor, 8 grs; powdered cloves, 32 grs. Mix. This is used in cold in the head, and proves very efficacious.

Infusion of Sanguinaria.—Sanguinaria, bruised, 5 drs.; boiling water, 1 pt. Macerate for four hours, and strain. The emetic dose is from ½ an oz. to 1 oz., at short intervals, till its effects are produced.

Decoction of Sanguinaria.—Sanguinaria, bruised, 6 drs.; distilled water, 1½ pts. Boil down to 1 pt., and strain. Dose same as the infusion.

Extract of Sanguinaria.—This, and the powder, can be obtained of the medical botanists. The dose is from ⅛ to ½ gr. per day. It is best to commence with a sixteenth, according to the strength of the patient.

Tincture of Blood-Root.—This, also, can be bought. Will prove emetic in a dose of 2 to 4 drs.; but is rather intended to act as a stimulant to the stomach, expectorant, or alterative, for which purpose 20 to 60 drops may be given every two or three hours in acute cases, and three or four times a day in chronic.

Blood-Root Syrup.—Bruised blood-root, 2½ ozs.; lobelia, ¼ oz.; white sugar, 1½ ozs.; water, 1½ pts.; gently simmer half an hour, till it thickens; when cool, add 1 tea-spoon of paregoric elixir. Take 1 table-spoon occasionally; a child 1 tea-spoon, or less. This syrup is very valuable in chest complaints, bronchial affections, coughs, and difficult breathing.

BLOODY FLUX.—Feed on rice, sago, and beef-tea. To stop it take a spoon of suet melted over a slow fire. Do not bleed.

A person was cured in one day by feeding on rice milk, and sitting a quarter of an hour in a shallow tub, having in it warm water, three inches deep.

BLOTCHES.—Blotches or pimples on the face and neck are often the effect of some functional derangement of the liver or stomach. Lotions in that case, do more harm than good. If they proceed from a disordered liver, take the compound colocynth and blue pill, (which a druggist will supply,) night and morning, for two or three days; then purge off with two or three doses of Epsom salts and senna. If they proceed from derangement of the stomach, take 15 grs. of carbonate of soda, 6 grs. of rhubarb, and 2 grs. of ginger, or cayenne pepper, in water, twice a day, and a compound colocynth pill every other day. Last thing at night rub the blotches with tallow, and in the morning apply fullers' earth about half an hour, wash off with warm water and soap; and during the day, several times, with elder-flower water. Take also extract of sarsaparilla, to purify the blood.

BRONCHIAL TROCHES.—Powdered extract of licorice, 4 ozs.; sugar, 2 ozs.; powdered cubebs, 1 oz.; gum arabic, ½ oz.; powdered hemlock, 1 dr. Mix.

BROWN OINTMENT.—Extract of henbane, 1 dr.; yellow wax, ½ oz.; red precipitate, 2½ drs.; pure zinc, powdered, 1¼ drs.; fresh butter, 3 ozs. Melt and mix, and add 1½ drs. of camphor dissolved in olive oil. This ointment is good for ringworm, all cutaneous eruptions, for ulcers, sore lips, itch, chronic ophthalmia, etc.

BONESET.—In this country it is a regular family medicine. It possesses emetic, expectorant, and sudorific properties. As a laxative it acts gently without irritating the bowels. In fevers it is very valuable, relaxing the bowels and subduing the febrile symptoms. In rheumatism and influenza it has a good effect. The cold infusion is an excellent tonic. To produce a vomit, take 1 oz. of the powdered leaves, and infuse in 1 pt. of hot water. Drink 1 cup every fifteen minutes until it takes effect. To promote perspiration, take small doses frequently.

BLACKBERRY SYRUP—For Cholera and Summer Complaints.—Blackberry juice, 1 qt.; fine sugar, ½ lb.; nutmegs, cinnamon, allspice, of each, ¼ oz.; cloves, 1½ drs.; cayenne pepper, ½ dr. Powder them all, and gently boil them in the juice for about twenty minutes. When cold, add ½ pt. of brandy. It relieves inward pains, cramp, and diarrhea.

Blackberry Syrup.—Make a syrup of 1 lb. of sugar, to each pint of water; boil until it is thick; add as many pints of the expressed juice of blackberries as there are pounds of sugar; put half a nutmeg grated to each quart of the syrup; boil fifteen or twenty minutes, then add half a gill of best French brandy for each quart of syrup; bottle it for use. A table-spoon for a child, or a wine-glass for an adult, is a dose.

Blackberry Cordial.—To 1 gal. of blackberry juice put 4 lbs. of lump sugar. Boil and skim off. Then add 1 oz. of cloves, 1 oz. of cinnamon, 10 grated nutmegs; boil down till sufficiently rich. Let it cool and settle. Then drain off and add 1 pt. of brandy.

Blackberry and Wine Cordial.—The following is recommended as a delightful beverage, and an *infallible specific* for diarrhea, or diseases of the bowels: To ½ bus. of blackberries, well mashed, add ¼ lb. of allspice, 2 ozs. of cinnamon, 2 ozs. of cloves; pulverize well,

mix, and boil slowly until done; then strain the juice through flannel, and add to each pint of the juice 1 lb. of loaf sugar; boil again for some time, take it off, and, while cooling, add ½ gal. of best Cognac brandy. DOSE.—For an adult, a wine-glass; for a child, a tea-spoon or more, according to age.

BITTER TONIC.—Gentian root, 1 oz.; the yellow rind of a fresh lemon; put into a jar or bottle with hot water; let it stand. A cup in the morning promotes appetite.

BLEEDING.—This is sometimes necessary in certain accidents, such as concussion, and therefore it is well to know how to do it. First of all, bind up the arm above the elbow with a piece of bandage or a handkerchief, pretty firmly, then place your finger over one of the veins at the bend of the arm, and feel if there is any pulsation; if there is, try another vein, and if it does not pulsate or beat, choose that one. Now rub the arm from the wrist toward the elbow, place the left thumb upon the vein, and hold the lancet as you would a pen, and nearly at right angles to the vein, taking care to prevent its going in too far, by keeping the thumb near to the point, and resting the hand upon the little finger. Now place the point of the lancet on the vein, push it suddenly inwards, depress the elbow, and raise the hand upward and outward, so as to *cut obliquely across* the vein. When sufficient blood is drawn off, which is known by feeling the pulse at the wrist, and near the thumb, bandage the arm. If the pulse feels like a piece of cord, more blood should be taken away; but if it is soft, and can be easily pressed, the bleeding should be stopped. When you bandage the arm, place a piece of lint over the opening made by the lancet, and pass a bandage lightly but firmly around the arm, so as to cross it over the bend of the elbow, in the form of a figure 8.

DRY CUPPING.—This is performed by throwing a piece of paper dipped into spirit of wine, and ignited, into a wine-glass, and placing it over the part, such as the neck, temples, etc. It thus draws the flesh into the glass, and causes a determination of blood to the part, which is useful in headache, and many other complaints. This is an excellent method of extracting the poison from wounds made by adders, mad dogs, etc.

Ordinary cupping is performed the same as dry cupping, with this exception, that the part is scarified or scratched with a lancet so as to cause the blood to flow; then the glass is placed over it again, with the lighted paper in it, and when sufficient blood has been taken away, then the parts are sponged, and a piece of sticking plaster applied over them.

BLACK SALVE, or HEALING SALVE.—Olive oil, 1 pt.; common resin, ½ oz.; bees-wax, ½ oz.; Venice turpentine, ¼ oz. Melt, raising the oil nearly to the boiling point. Then gradually add 2 or 3 ozs. of powdered red lead, while on the fire. Do not burn it. Boil slowly until it becomes a dark brown. Remove from the fire, and add 1 dr. of powdered camphor, when it is nearly cold.

This is a first-rate healing salve, superior to most. It is wonderful in burns, scalds, scrofulous, fistulous, and all other ulcers. Spread o linen, and renew daily.

COUGH REMEDIES.—The following are the best recipes for coughs. Some of them are of rare excellence:

To Allay a Tickling Cough.—Six table-spoons of molasses; the juice of half a lemon; simmer over the fire till well incorporated; take off, and add 1 table-spoon of paregoric, and about the size of a horse-bean of refined nitre. Take 2 tea-spoons when the cough troubles.

Take 4 ozs. of sugar candy, powdered; ½ oz. of citric acid, or lemon juice. Mix by heat. Add a few drops of oil of anise-seed. If the cough is not a dry one, add 20 drops of laudanum, or a dessert-spoon of paregoric. Take a tea-spoon at a time, when the cough is troublesome.

Powder of tragacanth, 1 dr.; syrup of white poppies, 3 drs.; laudanum, 40 drops; water, 4 ozs. Shake the powder in the water till it is dissolved, then add the others. DOSE.—A tea-spoon three times a day.

Asthmatic Cough.—Take 2 good handfuls of colt's-foot leaves, 1 oz. of garlic, and 2 qts. of water. Boil down to 3 pts. Strain, and to the liquor add 8 ozs. of sugar. Boil gently for ten minutes. Take half a cup occasionally.

Consumptive Cough.—The following is a most valuable recipe: Sanctuary, horehound, bayberry bark, 2 pennyworth of each; and of agrimony, raspberry leaves, cleavers, and ground ivy, 1 pennyworth; extract of licorice, 4 ozs.; and ½ a tea-spoon of cayenne pepper. Gently simmer in 2 gals. of water for an hour.

The following has cured most *obstinate* coughs: Take 1 pt. of milk, warm it, and when it comes to the boiling point, add as much made mustard as will turn it to a posset. Take away the curd, and into ½ pt of the posset put 1 oz. of brown sugar candy, to dissolve. Take the posset as hot as you can at night, when in bed, and renew it for three or four times. This has given relief in asthma.

A Dry Cough.—Dissolve ½ oz. of gum arabic, ½ oz. of Spanish juice, and 2 table-spoons of molasses, in a little warm water; add 3 drs. of the syrup of squills, and 2 drs. of syrup of poppies. Cork and shake well. Take 1 tea-spoon when the cough is annoying; drink linseed tea, sweetened with sugar candy.

Chew a little Peruvian bark, constantly swallowing the spittle. It seldom fails to cure a dry cough.— *Wesley.*

Two or 3 table-spoons of linseed, a small bunch of horehound; boil to a jelly, and strain. Add ½ lb. of sugar candy, ¼ lb. of honey, ½ lb. of loaf sugar. First boil the horehound in 1 qt. of water; then add the strained linseed and the other articles. Simmer for two hours. When cold, add of chlorodyne to the value of 25 cents. Bottle it and cork tight. A small quantity of spirits of wine or brandy, to keep it. When the cough is troublesome, take a table-spoon. *This recipe is invaluable.*

Balsam of tolu, ½ oz.; gum storax, ½ dr.; opium, 8 grs.; best honey, 2 ozs.; spirits of wine, ½ pt. Digest for six days, and strain. If the cough is fast, add ¼ oz. of ipecacuanha in powder.

An old remedy is to dissolve 2 ozs. of mutton suet in 1 qt. of milk, and drink it warm. This relieves a violent cough.

Beat well the yolk of an egg, put it in a mortar, and add ½ dr. of powdered spermaceti, a little fine sugar, and 1 table-spoon of paregoric elixir. Take a table-spoon when the cough is troublesome.

Dr. James recommends a mixture of vinegar and molasses in equal quantities; a tea-spoon to be taken when required. Or, take ½ pt. of vinegar, ½ oz. of Spanish juice, 1 oz. each of sugar candy and spirits of wine. A table-spoon at a time.

Take honey and molasses, of each 4 ozs.; best vinegar, 5 ozs. Mix, and slowly simmer them in a common pipkin for fifteen minutes. When the mixture is cold, add 1 dessert-spoon of paregoric elixir. DOSE.—A table-spoon three or four times a day. This is very useful in the coughs of children, as it has a very pleasant taste. DOSE.—One or two tea-spoons.

Or, peel and slice a large turnip, spread coarse sugar between the slices, and let it stand in a dish till all the juice drains down. Take a spoon of this when you cough.

Or, take a spoon of syrup of horehound morning and evening.

Or, take from 10 to 20 drops of elixir of vitriol, in a glass of water, two or three times a day. This is useful when the cough is attended with costiveness, or a relaxation of the stomach and lungs.

For a tickling cough, drink water whitened with oatmeal four times a day.

Or, keep a piece of barley-sugar or sugar-candy constantly in the mouth.

Cough Drops.—Gum guiacum, 2 drs.; camphor, 2 scrs.; castile soap, 1 scr.; laudanum, 40 drops; spirits of wine, 2 ozs.; balsam of Peru, 24 drops. Mix. Dose.—Ten or 15 drops three or four times a day.

Cough Drops.—Linseed, ½ cup; olive oil, ½ pt.; molasses or honey, ½ pt.; spirits of turpentine, balsam of fir, ½ oz. each; extract of licorice, ¼ oz. Mix, and simmer. Take from 10 to 20 drops two or three times a day.

Cough Lozenges.—Best Spanish licorice, 1 oz.; refined sugar, 2 ozs.; gum arabic, finely powdered, 2 drs.; and extract of opium, 1 scr. Well beat, or pound the whole together; then, with mucilage of gum ragacanth, make into small lozenges, to be dissolved in the mouth when the cough is troublesome.

Cough Lozenges.—Laudanum, 1 oz.; balsam of tolu, 1½ ozs.; licorice, 3½ ozs.; ipecacuanha powder, 2 ozs.; oil of anise-seeds, ½ oz.; starch, 1 lb.; sugar, 3 lbs.; mucilage to mix.

Cough, For.—Lobella, 2 ozs.; cayenne, ¼ oz.; vinegar, 1 pt.; sugar, 2 ozs. Boil the vinegar, and pour it hot upon the herb, etc., into a stone bottle; cork close for a few days. Dose.—For a cough, half a tea-spoon, or a piece of loaf sugar moistened with it.

Or, take of lobelia, 2 drs.; blood-root, 1 dr.; skunk cabbage, 1 dr.; pleurisy-root, 1 dr. Make into pills with molasses, honey, or balsam of Peru. Dose.—One or two, twice a day.

Cough Pill.—Extract of henbane, ¾ oz.; ipecacuanha, ½ oz.; extract of balm of Gilead buds, ½ oz.; cayenne, 2 grs.; oil of mint, 8 drops. Form into pills. Take one or two when needful. In bronchitis, catarrh, etc., these pills are invaluable for cough.

Cough Plaster.—Castile soap, 1 oz; lead plaster, 2 drs.; powdered sal-ammoniac, ½ dr. Mix the soap and lead plaster together, and when the mass has cooled, add the sal-ammoniac, and 1 dr. of cayenne pepper.

Cough, Plaster for.—Bees-wax, Burgundy pitch, and resin, of each, 1 oz; melt them together, and stir in ¾ oz. of common turpentine, and ½ oz. of oil of mace. Spread it on leather, grate some nutmeg over, and apply quite warm to the pit of the stomach.

Cough Syrup.—Hyssop and rue, of each, 1 oz.; horehound, 1 oz.; old tincture of lobelia, 3 ozs.; essence of pennyroyal, 1 dr.; essence of spearmint, 2 drs. Boil the hyssop, rue, and horehound till the strength is obtained; strain, and add sugar and molasses. Boil to a syrup, and when nearly cold, add the tincture and essences.

Cough Syrup.—Sage, 1 oz.; johnswort, 1 oz.; Iceland moss, 2 ozs.; white poppy heads, 2 ozs.; pearl barley, 2 table-spoons; water, 2 qts. Boil to 1 qt., and sweeten with sugar candy, adding a little lemon juice. If the cough is obstinate, add ¼ oz. of ipecacuanha. If the patient is asthmatic, add 1 oz. of sulphuric ether.

Cough Syrup.—Tincture of lobelia, 1 oz.; Iceland moss, 2 ozs.; white poppy capsules, bruised, 2 ozs.; pearl barley, 2 table-spoons; water, 2 qts.; molasses, 2 ozs. Boil down to 3 pts., and strain. Dissolve in it from 4 to 8 ozs. of sugar candy. It effectually allays a tickling cough. A table-spoon when the cough is troublesome. It does not constipate like laudanum and paregoric.

Or, take lobelia herb, horehound, boneset, 1 oz. of each; comfrey root, spikenard, St. John's wort, poppy capsules, ½ oz. of each. Infuse in 3 pts. of boiling water for three hours. Strain, and add ¼ lb. of loaf sugar boiled to a syrup. Add a wine-glass of best rum. A table-spoon is a dose. This is a valuable recipe for cough, hoarseness, etc.

CATHARTICS.—Medicines increasing the discharge from the bowels.

CATHARTIC POWDER.—Best senna, ginger, camomile flowers, of each 1 oz.; jalap, ½ oz. Powder fine, and mix well. Take from a half to a tea-poon in warm water or tea. This is a valuable aperient; it is powerful, and yet mild; effectually cleanses the bowels, and produces a healthy action in them, and also upon the liver.

CATNIP—Is carminative, diaphoretic, and refrigerant. It produces perspiration effectually, and is most useful in colds; throwing off fever, and restoring to health rapidly. It is good for nervous complaints, indigestion, wind, colic, and is very suitable for infants and children in belly-ache, flatulency, etc. DOSE.—Infuse a small quantity in a pint of boiling water. It is a good fomenter in swellings.

CAMOMILE.—The flowers possess antispasmodic, carminative cordial, and diaphoretic effects. The infusion of the flowers greatly promotes digestion, and with the addition of a few drops of elixir of vitriol, has arrested the worst of fevers. A strong decoction proves an emetic, and greatly cleanses the stomach.

CRANESBILL.—It is a fine plant. It strengthens the stomach and bowels, restraining all excessive evacuations, and preventing internal mortification. In bowel complaints, and fluxes, it is of great use. A decoction of the root forms a valuable gargle in quinsy, sore mouth and throat. For bleeding wounds it is a sovereign styptic The root bruised and saturated with cold water should be applied to the wound. DOSE.—Powdered root, from twelve grains. Decoction boil an ounce in a pint of water; a table-spoon.

CHARCOAL MEDICINE.—It is much used in Mexico, and in South America, where few drugs are procurable, save those "simples" which the ingenuity and experience of the *Indian Herbalists* have devised. Freshly burnt charcoal, reduced to powder and given in water, is in great repute. It immediately removes offensive odors from intestinal and renal discharges, and purifies the breath, it removes offensive exhalations from any part of the body, either given in water, or in the form of pills, made up in wheat flour, or gum mucilage. It removes pains about the right shoulder caused by obstructions of the liver. As an antiacid, either alone, or combined with rhubarb, and carbonate of soda, it speedily and permanently removes heartburn. Charcoal is a powerful antiseptic, removing, or checking decay, and must be very valuable in the incipient stages of consumption.

CULVER'S ROOT.—This is a good purgative, tonic, diaphoretic, antiseptic, etc. Its operation is mild, without producing weakness or prostration, and is most effective in fevers, to remove black and morbid matter from the bowels. Good for indigestion, to purify the blood, and acts powerfully on the absorbent system. Valuable in dropsy. DOSE.—One or two spoons in a small cup of water sweetened.

COMPOSITION POWDER—Thompson's.—Take bayberry, 8 ozs.; ginger, 8 ozs.; poplar bark, 4 ozs.; white oak bark, 4 ozs.; cayenne pepper, 3¼ ozs-; cloves, ½ oz. Powder and mix intimately. Dissolve a tea-spoon in a cup of boiling water, sweetened. Valuable to remove colds, influenza, fever, relax pain in the bowels, cold extremities. For promoting perspiration, and morbific matter, the cause of disease, it is invaluable. When taken, the patient should go to bed, and apply the hot brick, etc.

THE COLD WATER CURE.—The cold water treatment is that which nature has placed in the power of all her creatures; and without water taken inwardly and applied outwardly, there can be no health. Nature has no secrets in giving man life; she has implanted within him the knowledge of that which is to support and render pleasant the life. "I leave behind me," said a celebrated physician, on his death-bed, "*two great physicians, diet and water.*"

Water is the great dissolvent in nature. If the primary ducts be obstructed, water dilutes, attenuates, divides, and scatters the impurities contained in them; and these are afterwards ejected by the stomach and intestines. If disease be settled in the blood, and the morbific matter deposited in the different organs of the animal economy, nothing is so effectual as water to dilute the thickened and blunt the acute; to revivify that which languishes, extinguish that which burns, and to open again all the passages by which injurious humors can escape.

Cold water creates a sudorific process causing perspiration, without wearying the organic system. It is supported by copious draughts of cold water, which quench the thirst, moisten and refresh the blood, replace the lost juices, and maintain the tone of the muscles.

The drinking of cold water, and its application to the body by various processes, convey the morbid humors to the skin, whence they exude in eruptions, boils, and abscesses. These eruptions, constituting the crisis of the complaint, are the certain sign of a perfect cure. After the unwholesome juices are driven out and replaced by wholesome ones, then follow the restoration of the digestive powers, and the freeing of all the organs by the dissolving of all obstructions; the vital and animal functions are re-established in their former harmony; and thus nothing then remains but health, a treasure which can only be preserved by continuing the system by which it has been obtained.

Some will ask, Is the cold water treatment applicable to all descriptions of disease? We answer, that its application must be of advantage in the large number of acute and chronic diseases. There are cases, however, wherein some essential organ having become defective, art can do no more than prolong existence and alleviate suffering. Among such exceptions are consumption, organic diseases of the heart, of the lungs, of the large vessels, dropsy, etc. Yet all these cases, and others deemed incurable, by the moderate judicious use of some of the cold water applications, will insure relief and palliation of pain.

Again will the cold water treatment produce a radical cure? What is to be understood by the word radical? If it means the final extirpation from the system the cause of disease, and the relief of the patient from pain, then, the cure by the cold water method is *radical!* But if to be radical, a cure is sought which is to prevent a return of the disease, in cases of parties exposing themselves to the same influences which originated the disease, then neither this nor any other means of treatment will produce such an effect.

As to danger from the cold water treatment there can be no active mode of treatment more innocent, with reference to its present or

future effects, if applied with judgment; but if not, it may be followed by very dangerous consequences.

The water used must be cold and fresh, and *soft;* that is, it must have the quality of dissolving, and therefore must be cold, and without any mineral properties. To prove its fitness, linen cloth washed in it must become white, and vegetables dressed in it must be tender.

The Sweating Process is the most disagreeable part of the treatment; but it is the most important, and the benefits derived from it compensate for the unpleasantness of its duration.

The patient is enclosed, naked, in a large coarse blanket, the legs extended, and the arms kept close to the body; the blanket is then wound round it, as tight as possible, turning it well under at the feet; over this is placed, and well tucked in a small feather bed, sometimes two; and then a sheet and a counterpane are spread over all; thus the patient resembles a mummy. Sometimes, when perspiration is difficult, the head, except the face, is covered. Perspiration begins in about 45 minutes, and then the irritation goes off. The patient should lie perspiring at least one hour. The windows in the room must be opened, and a glass of cold water given every half hour, to refresh the patient, and promote perspiration. If there is headache, a damp cloth may be wrapped round the head. This process does not weaken the patient; he loses neither weight nor strength, but improves in personal appearance, even under several processes.

The necessary duration of the process may be known by profuse perspiration on the patient's face. The person should be washed well in warm or tepid water. The sweating process must be used with great care, and the constitution of the patient must he considered. M. Priessnitz, of Silesia, practiced and recommended the cold bath immediately afterwards. "Strange as it may appear to many," says Dr. Graham, "I consider the determination towards the skin, induced by the perspiring blankets, to be a great advantage, prior to the use of the cold bath; because the internal organs are thereby relieved, and the shock has quite a different effect on them from what it would have if they were not first soothed, and the skin relieved."

By this process internal diseases are often brought to the surface, and pass away; the nervous system is wonderfully strengthened; and skin diseases are annihilated. The sweating contains morbid matter. M. Priessnitz justly remarks:

"Covered and swaddled with clothes, in our darkness we do not see that if the corrupt and dirty matter from daily insensible perspiration, or from sensible sweating, is not carefully cleared from the skin by washing, it must increase and attach itself to the skin, close the pores, and obstruct the excretion so indispensable to health, and must inevitably, from such evil tendency, at last produce disease. We relax and debilitate the skin, by dressing so warmly during the day, and sleeping on feather beds at night, or by washing ourselves with warm water.

The COLD BATH.—Do not bathe soon after walking. During the bathing immerse the head several times in cold water. Keep in motion during the time. Priessnitz advises his patients to avoid the second sensation of cold, which is a sort of fever, by leaving the bath before it is felt, that they may avoid a too powerful re-action provoked by a great subtraction of heat. Take a glass or two of water immediately after the bath.

The DOUCHE BATH is very efficacious in extracting the morbid humors from all the parts they have seized upon for years. In long

continued complaints the douche is a most powerful remedial agent. It removes the weakness of the skin, and strengthens it. It renders the body hardy, and fortifies it to endure all changes of the air. It powerfully excites the muscular and nervous systems. The Douche Bath is a stream of falling water as thick as the wrist. and permitted to fall on the diseased parts of the body, which it benefits and strengthens. The water should fall from 12 to 18 feet.

The EYE BATH is a glass instrument made to fit the eye, so as to apply cold water, the eye being opened at the same time.

The FINGER BATH is used for Whitlows, etc. Place the finger in a glass of water, four times a day for a quarter of an hour each time; and the elbow in water twice a day, and put on a heatingbandage above the elbow, to draw the inflammation from the hand.

The FOOT BATH is used when the doctors would order warm baths. Thus headaches, toothaches, eye-inflammation, and a flow of blood to the head, are always relieved by the foot bath, with the addition of wet bandages on the parts affected. But the foot-tub should not contain more than from two to four inches depth of water, just enough to cover the foot, not the ankles; for toothache an inch is enough, and the time from 15 to 30 minutes. For sprains the water must be up to the ankles. The water to be changed as soon as it feels warm. Afterwards apply friction, or walk out, to restore the warmth. Dr. Graham says, "I can recommend the foot-bath, with confidence, in determination of blood to the head, in headache, in affections of the eyes, and in habitual coldness of the feet."

The HEAD BATH is a vessel with a few inches of water for bathingthe back part of the head, to cure its rheumatic pains, common headaches, rheumatic inflammation of the eyes, deafness, loss of appetite, delirium tremens, giddiness of the head, and to prevent apoplexy. It often causes bad morbific matter to exude from behind the ear.

The SITZ or SITTING BATH is a small shallow tub 18 inches in diameter, with water 3 or 4 inches deep, in which the patient sits, with his feet on the ground, for 15 minutes or more, two or three times a day. It wonderfully strengthens the nerves, draws down humors from the head and chest, relieves flatulency, and has the most important results to those who lead a sedentary life. Use only 3 or 4 inches of water, as a larger quantity would remain cold, and perhaps cause congestion to the upper extremities; a wet bandage to the head will, however, prevent any congestion. Rub the abdomen as much as possible, while in the bath, with the wet hand. *It is a most valuable bath.* It is a remedy of great power in weak bowels, piles, congestion in the liver, chlorosis, and other female complaints; its value is little known.

COOLING BANDAGES.—These are mostly used in inflammation, congestion of blood, headache, rheumatism, etc., and should always be accompanied by the sitz bath. Linen is first wetted in cold water, doubled in several folds, and placed on the parts affected; renew them as they get warm.

STIMULATING BANDAGES.—They are dipped in cold water, then well wrung out, then applied to the part affected so as to exclude the external air; to effect this, an outside bandage is placed over the first, which retains and throws back the moisture. Heat is thus generated, and has an exciting and dissolving property, which stimulates perspiration, and draws out the vicious humors. For throat and chest complaints, they are worn one round the neck, and one on the chest, at

night; for weak and inflamed eyes, one is worn at the back of the head or neck at night; for weak digestion and cases of debility, one round the waist, all day; and for gout and rheumatism, the legs are wrapped in them night and morning. The *umschlag* or *stimulating bandage*, is always used for wounds, bruises, and diseased parts, and for pain in any particular region of the body. Its alleviating power is most surprising.

The bandage for the waist is a towel, three yards long, and one foot wide; of this, one-third is dry, and two-thirds wet. The wet part is placed on the belly, the dry covers it. It is made tight round the body. It is a cure for intestine congestion, for constipation of the bowels, relaxation, colic, and for gripes. It rallies the powers of the stomach, increases its heat, and by assisting digestion, enables the system to form better juices. Gout, rheumatism, enlargement of the bones, abscesses, chronic inflammation, cancers, caries, and syphilitic ulcers, demand the application of these bandages; for they relieve pain when all other remedies fail.

THE WET SHEET.—All diseases of the skin, as ringworms, small pox, measles, and scarlet fever, may be cured by the *wet sheet*. Do not start at this, for it is consonant with reason. It soothes the patient, promotes the eruption, and in fevers it produces salutary perspiration.

Spread a blanket on a bed, then on it a *wet sheet*, well wrung out; wrap the patient close up in it, except his face; wind the blanket round the body, already cased in the sheet; then add plenty of blankets, tuck them well in, and the necessary perspiration will soon be generated. To stop fever, change the blanket every hour or half hour. "In desperate cases," says a medical writer, "we have known this done fifty times in little more than 24 hours, and perseverance in this treatment ends infallibly in success."

When the fever has abated, the patient is placed in a bath of tepid water (about 64° Fahrenheit,) for a quarter of an hour; during which time two persons must rub him briskly with the hand, water being taken up from the bath occasionally, and poured over his head and shoulders. The wet sheet, or bandage, is not unpleasant long; the patient gets warm almost directly; but we must not regard inconvenience or unpleasantness for a cure. Are drugs, blisters, and leeches pleasant? But the application of cold water, in any way, relieves the skin, excites it, and disencumbers it of obstructions which close the orifices of the pores, a reaction of the whole system ensues, a heat being created on the surface, 40 or 50 degrees above the usual temperature of the body. The body imbibes a portion of the water, which in conjunction with the heat newly caused, softens and dissolves the morbid humors, and assists in their exudation by the pores of the skin.

ABLUTIONS.—Where persons are very weak, washing and rubbing the body must be done, in place of the bath or douche; and water may be poured over the heads of feverish patients, and rubbed on the shoulders and parts affected. If the patient be too weak to allow of this rubbing, a wet sheet is thrown over him, on which the friction is applied. This is of great advantage in weak cases and young children. The ablutions are an essential, agreeable, and valuable portion of the cold water system. In trifling complaints, gout in its infancy, nervous irritability, or in weakness in the skin, ablutions, accompanied by drinking abundantly cold water are very often sufficient to establish health. Ablutions should be performed in the morning immediately on getting out of bed, before the body has become chilled, and the patient must afterwards take exercise in the open air. Fatigued per-

sons may try the wet sheet and rubbing, and they will speedily find the benefit of it. To use the wet sheet as an ablution, the patient stands up, and the servant flings it over his head and body; rub the body well for five minutes, then take off the wet sheet, and put on a dry one. This is a certain relief for fatigue and over-exertion.

COLD WATER DRINKING.—The best time both for drinking cold water and exercise is before breakfast. Then they both produce their *best* effects; but the only general rule prescribed by Priessnitz is to drink cold water as much, and at all times, as it can be done without inconvenience. Water may be drank after breakfast, but the stomach must not be over-charged. At dinner also a few glasses may be taken to moisten the food; after that the stomach must be left to itself; and after the lapse of a few hours, we may go on drinking cold water until supper time. It may be taken after supper, but not so as to disturb the rest. Exercise, which is in itself a part of the curative process, excites the beneficial action of the water, and promotes the cure. *The water* should be fresh from the spring, and as cold as possible. Stoppers must be kept in the bottles and decanters which hold it, as the water then will preserve its coldness and freshness much longer.

ADVICE.—Immediately on rising in the morning, rinse the mouth, and wash the teeth with cold water, then drink two or three glasses of spring water; after this, the whole body, especially the head, must be washed. If a thickness in the throat be felt, gargle well, and rub the outside of the throat three or four times a day, with a cold wet hand; keep the water in the mouth until it becomes warm, then repeat it. This method is recommended for clearing and strengthening the throat.

DANDELION.—This very valuable plant is well known. It is diuretic, tonic, and aperient, and has a direct action in removing obstructions of the liver, kidneys and other viscera. It is peculiarly valuable in all liver complaints, derangement of the digestive organs, and in dropsical affections. Had not this plant been so common and so cheap, it would be *prized like gold*! An infusion or decoction may be made of the roots and leaves. But the extract is the best, thus prepared; Take up the roots in September, clean them; bruise in a mortar, and press out the juice; strain and put it upon a plate in a warm room to evaporate, and render it thick and solid. DOSE.—From a scruple to a drachm three times a day.

Dandelion has cured liver complaints when all other means have failed. "The more dandelion is used, the more certain proof will it afford of its utility."—*Dr. J. Johnson.*

Dandelion Beer.—Dandelion root, ½ lb. to 1 gallon of water boil well and when cooled, new milk warm, add 1 lb. sugar, 1 oz. ginger, a lemon, and 1 oz. cream of tartar. Add a little yeast. It is very good for the liver and digestion.

Dandelion Coffee.—Good coffee, 3 parts; hard extract of dandelion, 1 part; chickory, 1 part. Reduce them to a coarse powder, and mix, and grind them together. Good for the digestion and affections of the liver.

DISCUTIENT OINTMENT.—Deadly night shade, bark of bittersweet root, Cicuta leaves, stramonium leaves, of each 3 ozs.; lard 1½ lb. Bruise and simmer the roots in spirits; then add the lard, and simmer till the ingredients are crisp, and strain. A great disperser of scrofulous and glandular swellings.

DIURETICS.—Medicines increasing the secretion of the urine.

Diuretic Decoction.—Queen of the meadow, wild carrot root seed, spearmint, milkweed, dwarf elder, juniper-berries, of each, 2 ozs.

Bruise, and boil a short time in two quarts of water, Very useful in gravel and dropsy. A cupful to be taken occasionally.

Diuretic Drops.—Tincture of kino, ½ oz.; balsam of copaiba, spirits of turpentine, of each 1 oz.; sweet spirits of nitre, 2 ozs.; queen of the meadow, 1 oz. Mix, and add one scr. of camphor. Take nearly a teaspoonful in mucilage. Most valuable for scalding urine, inflammation of the kidneys, etc.

Diuretic Infusion.—Parsley seed, ¼ oz.; cleavers, ¾ oz.; burdock seeds, ¾ oz.; coolwort, ¾ oz.; spearmint, ½ oz.; juniper berries, ¾ oz.; linseed, ½ oz.; gum arabic, ¼ oz. Pour upon these two quarts of boiling water; infuse two or three hours, covering the vessel. Strain, and add ½ pint of best gin, 4 ozs. of honey and 3 tablespoonfuls of slippery elm. This is a most valuable diuretic; it is cooling and allays all urinary affections, gravel, scalding urine, and it causes an easy and sufficient flow of the same.

Diuretic Pills.—Calcined magnesia, 1 dr.; solidified copaiba, 2 ozs.; extract of cubebs, 1 oz; oil of turpentine, 4 drops; oil of juniper, 6 drops; form into 3 grain pills. Take one or two a few times a day A *sovereign remedy* for diseases of the kidneys, bladder, uretha, gravel, whites, and venereal complaints.

DOVER'S POWDERS.—Ipecacuanha, in powder, 1 dr.; powdered opium, 1 dr.; powdered saltpetre, 1 oz. All well mixed. Dose.—From 8 to 20 grains.

DECOCTION OF SARSAPARILLA.—Take 4 ozs. of the root and slice it down, put the slices into 4 pints of water, and simmer for four hours. Take out the sarsaparilla, and beat it into a mash; put it into the liquor again, and boil down to two pints, then strain and cool the liquor, Dose.—A wineglassful three times a day. Use. To purify the blood after a course of mercury; or, indeed, whenever any taint is given to the constution, vitiating the blood, and producing eruptive affections.

DIAPHORETIC POWDER.—Ipecacuanha powder, 2 grs.; purified opium, ½ gr.; nitrate of potass, or saltpetre, 10 grs. Take at bed time in a severe attack of influenza, or bronchitis, in gruel. Henbane is preferable to opium.

DYSPEPTIC PILL.—Colocynth, castile soap, gamboge, of each ½ ozs.; socotrine aloes, 4 ozs.; oil of cloves, 2 drs.: extract of gentian, 4 ozs. Mix and form into pills. Most valuable for indigestion, and cleansing the stomach, and giving it tone.

EXTRACTS—To Make.—Take of the plant, root, or leaves you wish to make the extract from, any quantity, add sufficient water, and boil them gradually, then pour off the water and add a second quantity repeat the process until all the virtue is extracted, then mix the several decoctions, and evaporate at as low a temperature as possible, to the consistence of an extract. Extracts are better made in a water-bath, and in close vessels, and for some very delicate articles, the evaporation may be carried on at a very low temperature, in a vacuum, by surrounding the vessel with another containing sulphuric acid. Manufacturing druggists usually add to every seven pounds of extract, gum arabic, 4 ozs.; alcohol, 1 oz.; olive oil, 1 oz. This mixture gives the extract a gloss, and keeps it soft.

EMETIC MIXTURE.—Ipecacuanha wine, ½ oz.; water, 1 oz.; simple syrup, ½ oz. Mix. For a child, 20 drops, or more, every quarter of an hour until vomiting ensues. An adult may take from half to one ounce.

EMETIC POWDER.—Ipecacuanha and lobelia, of each 2 ozs.

blood-root, 1 oz. Powder, and mix well. Take half a teaspoonful every twenty minutes till it operates.

EXPECTORANT TINCTURE.—See "Anti-spasmodic Tincture," which is the same.

FEMALE PILL.—Aloes and lobelia, of each 1 dr.; black cohosh, gum myrrh, tansy, unicorn root, of each 1 oz.; cayenne, ½ oz. Mix, and form into pills with solution of gum. These pills remove female obstructions, and are good for head aches, lowness of spirits, nervousness, and sallowness of the skin.

Or, aloes, red oxide of iron, white turpentine, of each 1 oz. Mix. Melt the turpentine, and strain; mix well; form into pills with mucilage. Take two or three per day.

FEVER DRINKS.—The juice of the lemon, cream-of-tartar, 1 teaspoonful; water, 1 pint. Sweeten with loaf sugar. When the patient is thirsty, let him drink freely.

FEBRIFUGES.—Medicines abating heat and fever.

Febrifuge.—Take houseleek; place in a coarse cloth, and squeeze out the juice, and strain; to 1 lb. of which add 1 lb. of loaf sugar; simmer a short time to form a syrup. Give a tablespoonful every two hours. In fevers this acts like magic,—in all kinds of fever.

GREGORY'S POWDER.—A prescription of the celebrated Dr. James Gregory, of Edinburgh. The Doctor was in the habit of frequently using it himself, and prescribing it so largely for his patients, that in time every chemist's shop in Scotland prepared it for the use of the public. It is a very excellent stomachic, antacid, and carminative, and may be given with equal confidence to children as to adults.

Gregory's powder is made by mixing intimately, in a wedgwood mortar, 1 oz, or part of powdered Jamaica ginger, 2 ozs. or parts of powdered rhubarb, and 6 ozs. or parts of calcined magnesia. The dose is from a teaspoonful to a tablespoonful, in a little plain or peppermint water, two or three times a day.

GREEN OINTMENT.—One ounce each chickweed, tansy, wormwood, horehound, hops, and a pinch of salt, finely powdered. Bruise, put into a kettle, cover over with lard and some spirits of wine. Infuse a week or two, and then simmer a little over the fire. Add from 8 to 12 ozs. of venice turpentine. This salve is very healing, applied to wounds, sores, and ulcers. It is useful in contusions, sprains, swellings, etc.

HOUSELEEK.—An excellent plant, so called from growing most frequently on the roofs of cottages.

It is used as a cooling application to sores, ulcers, etc. The juice mixed with cream is good for inflammation of the eyes, and erysipelas. Taken inwardly it is good for fevers, cooling them down wonderfully. *First give a purgative to cleanse the stomach and bowels; then bruise the houseleek; adding to the juice its weight in fine sugar to form a syrup. A tablespoonful every two hours. Drink balm or catnip tea.* This receipt is worth gold.

SENGREEN—Sempervivum Tectorum.—The common houseleek. This is one of the most popular of our native plants among the people and one which, from our experience, we can recommend especially as an external remedy to painful bruises and contusions, the fresh roots or stems being scraped and applied, with all their moisture, to the injury. In cases of dimness of sight, the juice of the plant dropped into the eye is said to effect remarkable benefit. It is, however, as an external application to ill-conditioned sores and ulcers, to abrasions, eruptions, such as shingles, and contused wounds, that we regard sengreen as a most valuable remedy.

LIME LINIMENT.—Linseed or common olive oil and lime-water, equal parts, to be well shaken before using, is good for scrofulous or other sores, and still more for burns or scalds.

LIME WATER.—Put unslacked lime into a tub; cover it with pure water; stir often for one day; then strain off the water, and keep for use. It is an anti-acid tonic, kills worms, and frees the bowels from slimy and morbific matter. It promotes digestion; it is valuable in looseness, scrofula, diabetes, and whites. Mixed with a decoction of Peruvian bark, it wonderfully strengthens the debilitated, and those threatened with atrophy.

LOBELIA.—An American plant, containing most valuable medical properties. It was first used with great advantage, as an emetic, by the American Indians, and was brought into notoriety by Dr. Samuel Thompson. It is emetic and stimulating, and Dr. Beech says, "from its action on the great sympathetic nerve, its effect is felt throughout the whole system. It exerts a peculiar action upon the trachea and bronchial vessels, expelling all collected mucus." It must therefore be very valuable in asthma, croup, whooping cough, consumption. The greatest benefit from it has been found in dyspepia, coughs, asthma, liver complaints, etc., It has relieved asthmatic subjects when on the point of suffocatiou by accumulated phlegm, cough, etc. Also in pneumonia of infants.

It is a valuable sudorific; it relaxes the constricted pores of the skin, and promotes free perspiration. The leaves, seeds, and seed-vessels may be given in powder, and tincture. Dose of the powder, from a drachm, or a small teaspoonful; of the tincture, a teaspoonful.

LOGWOOD—An Antiseptic.—Dr. Desmartis, in a paper to the Academy of Sciences, announces that *Campeachy Logwood* (Hœmatoxylum Campeachianum) possesses the same valuable quality, and in a much higher degree, than coal, tar, and plaster, or creasote, which have hitherto been esteemed as the best antiseptics. The fact was discovered by accident. Dr. Desmartis had several cancerous patients under his care, all presenting large ulcerous sores, emitting a most nauseous smell. An astringent being considered expedient, a pomatum composed of equal parts of extract of logwood and hog's lard, was applied to those sores, whereupon, to the Doctor's surprise, the fetor disappeared completely, and the emission of pus was considerably attenuated. To complete the evidence, he suspended the use of the pomatum for a few hours only, when the offensive emanations immediately recommenced, and the purulent secretion became again abundant. Logwood causes gangrene to disappear as if by enchantment, especially that of hospitals. He has also found it efficacious in preventing or stopping erysipelas, which often occurs after amputation, or the infliction of other wounds, and is a source of constant anxiety to the surgeon. It entirely removes the putridity of ulcerous cancers, emitting characteristic effluvia, and in short, of the most fetid sores. This substance also possesses the advantage of being capable of mixture with hœmostatic medicines, (designed to arrest spitting of blood, etc.,) such as ergotine, perchloride of iron, persulphate of iron, etc.; it may also be used as powder and a lotion. The extract of logwood, which is much used in dyeing and is very cheap, is only soluble in warm water. See "Robinson's Herbal."

HERBS.—They make the best medicines and the completest cures.

Herbs—For Dyspepsia or Indigestion.—Camomile, agrimony, betony, thistle (blessed), carraway seed, sweet flag, fennel, garlic,

horehound, hyssop, lavender, masterwort (the root), mint, mustard seed. penneyroyal, horse radish, rue, wormwood.

Decoctions of the above are made by pouring boiling water on them. A little should be taken in the morning fasting.

For Purging the Bowels.—Class 1. The powerful are the following: common dock, hellebore, (white), in doses not exceeding four grains: black hellebore, from two to five grains; marshmallow leaf decoction, and mountain flax.

Class 2. More moderate; buckthorn berry, broom, and dandelion.

For Worms.—Bear's-foot, cowhage, camomile, garlic, fern root, savin, and wormwood.

Astringents.—Those which serve to correct excessive discharges. Logwood, red roses, sage, and tormentil root.

Carminatives.—Those herbs which allay pain, or dispel wind from the stomach; anise-seed, caraway seed, peppermint, spearmint, ginger, and dill root.

Demulcents.—Those herbs which soften, or which lessen acrimony, or the effects of stimulus on the solids; as, colt's-foot, liver-wort, mallows, liquorice root, comfrey etc.

Diaphoretics.—Those which promote perspiration; burdock, centaury, bay tree, betony, balm, germander, lovage, and rue.

Tonics.—Those which give strength and vigor to the body; bistort, balm, bog-bean, camomile, centaury (lesser), logwood, gentian, southernwood, tansy, tormentil, valerian, and wormwood.

To Heal Ulcers.—Adder's tongue, agrimony, archangel, arsesmart, cuckoo plnt, blue bottle, burdock, bryony, soapwort, celandine, centuary, chickweed, cinquefoil, comfrey root, mugwort, cudweed, dog grass, water dock, figwort, flax-weed, foxglove, glasswort, ground ivy, ground pine, tormentil, tansy, bugle, scurvy grass, and nightshade.

Either made into ointments, with hog's-lard, or washes made of them, and daily applied to the parts.

To Purify the Blood.—Agrimony, borage, burdock (sea,) chickweed, chervil, fennel, fir tree, fumitory, garden cresses, wild water cresses, ground pine, hops, maiden hair, sorrel and tansy.

Made into decoctions with hot water, and taken every morning.

OINTMENT—For Eruptions.—Simmer ox-marrow over the fire, add a little salt, and a teaspoonful of bandy. Strain. When cold rub the part affected.

PENNYROYAL.—This plant is perennial. It flowers in August and September. It is warm, pungent, aromatic, stimulating, and diaphoretic; like spearmint, but not so agreeable. It contains a volatile oil which is obtained by distillation. The infusion is warming to the stomach, and allays sickness. It relieves spasms, hysterics, flatulency, and colic, and promotes expectoration in dry consumptive coughs. It promotes perspiration, and is most valuable in obstruction of the menses.

Pennyroyal water.—Pennyroyal leaves, dry, 1½ lbs.; water, from 1½ to 2 gallons. Draw off by distillation, one gallon. It is a specific remedy for female obstructions. It is good for gout, rubbing the parts with it till they are red; and if salt be added, it is good for the side in liver complaints. It is very warming to the stomach, produces perspiration, and therefore is good for coughs, asthma, etc. An infusion of the herb in hot water is nearly as good.

PULMONARY BALSAM.—Horehound, (plant) comfrey-root, blood-root. elecampane-root, wild cherry bark, spikenard-root, penny-

royal, (plant) of each, 4 ozs. Pour 3 quarts of boiling water upon them; infuse for 3 hours; then heat the water again; and pour it upon the plants to infuse 5 or 6 hours. Sweeten with sugar candy. It is very serviceable in diseases of the lungs, chronic coughs; it removes constriction of the chest, by promoting expectoration. Take half a small tea-cupful three or four times a day.

PULMONARY COMPLAINTS.—It is said that the tender shoots of Scotch fir, peeled and eaten fasting early in the morning in the woods, when the weather is dry, has performed many cures of pulmonary complaints among the Highlanders in Scotland.

PULMONARY SYRUP.—Blood-root, boneset, slippery elm bark, coltsfoot, elecampane, of each, 2 ozs.; white root, spikenard root, of each, 4 ozs.; comfrey-root, poplar bark, of each, 1 oz.; lobelia, horehound, snake-root of each, ½ oz. Pour upon them 2 quarts of boiling water; stir well; add 1 lb. of molasses, and when cool, 1 quart of Hollands gin. It is one of the best remedies for asthma, coughs, hoarseness, etc. A tablespoonful every hour; or a wine-glassful three times a day.

INHALATION.—The process of drawing into the lungs the fumes and aroma of certain drugs and fluids, from an apparatus contrived for the purpose. The substances generally used for this purpose are vinegar, camphor, benzoin, ether, and chloroform, the two latter being used as *anæsthetic* agents, to blunt the sense of pain or produce insensibility, and are inhaled by an apparatus specially adapted for the purpose; the others are generally thrown into boiling water, and the watery fumes, charged with the medicament employed, are inhaled through a tube.

Great relief is often found in congestive asthma from inhalation of steam or smoke; for this purpose an inhaler, such as the one represented in the accompanying cut, should be half filled with boiling water mixed with about a dessert spoonful of strong ascetic acid or half a drachm of sulphuric ether or a few drops of creosote, which being poured on the hot water and the lid firmly secured, the patient is to adjust the mouthpiece to his lips, and slowly inhale the impregnated vapor that rises through the tube, retaining the steam as long as convenient in the mouth. Whichever article is used for the inhalation, the quantity employed should be steadily increased, and the operation always commenced with a small dose. Inhalation of the steam of plain warm water, sage or balm tea, or a decoction of camomiles, and poppy-heads, poured into the inhaler, will often afford very great relief, and more particularly when used alternately with any of the above articles—acetic acid, ether, etc.

POULTICES.—These external aids to the surgeon form a series of most valuable agents, not only in the treatment of local disease and injuries, but as grateful emollients and sedatives, often of the greatest

benefit and comfort to the patient. Poultices are of five kinds,—the simple warm emollient, the sedative, the stimulating, the blistering, and the corrective or antiseptic poultice.

Warm Emollient Poultices.—The great object desired in all the poultices belonging to this class is warmth, steadily and evenly applied; and as there is really no virtue in any article used for the purpose, that substance or material makes the *best* poultice which will maintain, for the longest period, *heat* on the part; the sovereign quality of all these poultices residing solely in the warmth applied. Of all articles suited for an emollient poultice, the *spongio-piline* is the best. This material, made of shreds of sponge and felt woven together on a ground of Indian rubber, can be procured in pieces of any length or size, and merely requires its pile or loose surface to be soaked in hot water, squeezed to discharge the excess of moisture, and applied face downward on the part, the impervious nature of the upper surface preventing the escape of the heat by evaporation. A piece of oiled skin applied over all will still further secure the heat. Evaporation may be entirely prevented by previously cutting the pile away from the edges in such a manner, that, when secured, the India rubber coating shall overlap and shut in the part covered.

Bread and Water.—This kind of poultice is too often made in a manner at variance with all the known laws of evaporation, either by pouring hot water on crumbs of bread, or on pieces of bread, and then breaking them down with a spoon or a fork. The proper method of making such a poultice is to cut a slice of bread from a loaf, about half an inch thick, remove all the crust and hard edges without cracking the crumb, which, with a sharp knife, should be squared to the size required. The piece is next to be placed in the middle of a slip of muslin laid in a soup plate, then carefully covered with hot water, the rest of the muslin laid over the top, and another plate placed over all to keep in the heat for the space of two or three minutes, till every part of the bread has become charged or swollen by the water, which is to be poured off by taking up the two plates together, when a small amount of pressure will expel the excess of water without breaking the poultice, which is then to be carefully lifted by the ends of the muslin which encloses it, and laid on the part, a piece of oiled skin and a bandage being added to keep in the heat and secure it in its place.

Linseed Meal.—This substance, from the quantity of gum and oil it contains, makes an excellently soft and agreeable poultice, the former serving to retain the heat a long time, and the latter to keep the surface soft. As much meal as is requisite is to be put in a basin, a hole made in the centre with a spoon, and as much hot water as may be deemed necessary poured at once into it; the whole is then to be quickly and carefully stirred till a smooth and intimately mixed mass of the consistency of porridge is obtained. Should too little water be used, the mass will be hard and lumpy, and cause much delay and trouble in the amalgamation of the water subsequently added, whereas if the quantity is rightly guessed at first, the poultice will be of one uniform consistency. It is then to be spread about an inch thick on linen or flannel, its surface greased with a little lard, and laid on the part.

Flour and Oatmeal Poultices are made in the same way, only they require to be more largely greased than the linseed meal, to prevent their sticking to the skin when removed.

N. B.—In making all these poultices the water should be nearly

boiling, to allow for the loss of the heat during the time of their preparation, so that when applied they may be as warm as the patient can bear them without inconvenience.

The objects for which all the above forms of poultice are employed are, first, to soften and relax the cuticle; secondly, by the warmth to soothe the part and afford ease; and thirdly, by the continued heat to mature abscesses, or what is popularly known as drawing an abscess to a head, heat having the property of facilitating the change of the effused blood into pus, when it is desirable to effect that change.

Sedative Poultices.—The object for which poultices of this class are chiefly used is to subdue pain of a local character, as in sprains, bruises, contusions, or accidents generally. Poultices of this nature are usually made by preparing a strong decoction of camomile flowers, or camomiles and poppy-heads, and then filling a small bag with camomile flowers, and after soaking it in the hot decoction, applying it to the joint or part affected, and repeating the application as soon as it has become cold; or a thick slice of bread may be enclosed in a bag, and immersed in the same manner in the hot decoction; or crumbs of bread, linseed meal, or oatmeal, may be used in the same way, by first making them into a paste. The first plan, however, is the simplest and the cleanest mode of using this kind of poultice. Hemlock and monkshood are also occasionally used for the same purpose, the herbs being first boiled in water, and the hot liquor absorbed by bread or linseed meal as above, and applied either in a bag or between folds of linen. An opium poultice may be employed in the same way, by previously dissolving the solid opium in boiling water.

Stimulating Poultices—Are employed in cases of rheumatism, paralysis, lumbago, and chronic affections of the joints, their object being to excite a healthier action in the part, and, by a species of mild counter irritation, produce a beneficial change. Sometimes they are used to rouse a patient in a case of lethargy, and draw the blood from some internal organ. Stimulating poultices are usually made with a mixture of mustard and flour, in proportions according to the stimulating effect desired; thus, one table-spoon of mustard with three of flour, mixed together before being wetted with hot or cold water, or else one spoon of mustard to two of flour, or equal parts, which is the strongest form in which this kind of poultice is used. Sometimes, to add to the stimulating properties of this poultice, a strong infusion of horseradish is employed instead of water for the purpose of mixing the mustard and flour into a paste. These poultices should be spread on a flannel, and where the skin is very sensitive, a piece of thin muslin may be interposed between the poultice and the cuticle. The time that a mustard poultice should be retained must depend upon the strength of the poultice itself, and the object for which it is employed; from ten to forty minutes, however, may be regarded as the extreme points of duration. Carrots are occasionally used as stimulating poultices to ulcerating surfaces, but their efficacy is very questionable.

Blistering Poultices.—Mustard is the only article employed for this purpose, and then the mustard is used simply with water, and without flour; it should be made thick, spread on flannel, have its surface covered with fine muslin, and then applied to the skin. Some medical men mix euphorbium powder with the mustard, to increase its blistering properties, but this addition is seldom required. A mustard plaster generally requires about fifteen minutes to rise, and should be removed directly the vesication takes place; the blister is then cut,

and dressed first with a warm poultice, and lastly with violet powder.

Corrective Poultices.—The purpose for which this class of poultices is employed, is to destroy the fetid odor of foul ulcers, ill-conditioned sores, and to change the character of the granulations, or of the discharge which exudes from them. The articles chiefly used for this end are yeast, charcoal, chloride of lime, and alum.

Yeast Poultice.—This may be made in several ways. First, by mixing one or two table-spoons of yeast with the same amount of flour, and then adding enough hot water to make the whole into a smooth paste, which is to be spread on flannel, and laid on the ulcer or sore. Secondly, by mixing four table-spoons of linseed meal with two of yeast, and the same quantity of boiling water, or enough to make a smooth paste, to be applied on flannel. Thirdly, take a thick slice of bread without crust, soften it with boiling water, and then cover the top with fresh yeast, and apply the yeast side to the ulcer; or the yeast may be applied on piline, first made warm and soft by hot water.

Charcoal Poultices.—These are made by mixing charcoal and flour and linseed meal, in nearly equal quantities, in a basin, adding hot water, and stirring till a smooth paste is made, which is to be applied, like the others, on flannel.

Chloride of Lime—May be made in the same way, or by mixing the meal with the solution.

Alum Poultices—Are only used as an astringent in certain chronic inflammations of the eye. This poultice is made by mixing the white of two or more eggs with a drachm of finely-powdered alum; put the mixture between a fold of muslin, and apply it to the eye.

Cold Bread and Water Poultices—Are sometimes employed, and when such are necessary, they are made in the same way as the hot bread poultice, only substituting cold water; and when cold astringent poultices are required, all that is necessary is to soak the bread in a solution of alum, and apply it cold as often as the poultice becomes warm from contact with the flesh.

Poultice.—Take 4 ozs. of crumbs of bread, a pinch of elder flowers, and camomile; boil them in equal quantities of vinegar and water. Or, take linseed flour, and the dregs of ale or porter barrels, slightly boiled. It always keeps soft from the oiliness of the linseed, and the yeasty deposit of the malt liquor is both cooling and sweetening.

Poultices are designed to soften and relax any swelling, and allay pain and inflammation, to ripen tumors or swellings, and to cleanse inflamed and gangrenous sores, ulcers, etc. Always remove a poultice when it becomes dry; the place must be well washed in warm lye water, and a fresh poultice applied.

The best poultice for every purpose is the *slippery elm bark;* it may be made with warm milk and water, or with soap-lye. If tincture of myrrh be added, it is valuable in boils, ulcers, carbuncles, etc.

Poultice for a Fester.—Boil bread in lees of strong beer; apply the poultice in the general manner. This has saved many a limb from amputation.

How to Make a Mustard Plaster.—How many people are there who really know how to make a mustard plaster? Not one in a hundred, at most, perhaps, and yet mustard plasters are used in every family, and physicians prescribe their application, never telling anybody how to make them, for the simple reason that doctors themselves do not know, as a rule. The ordinary way is to mix the mustard with water, tempering it with a little flour, but such a plaster as that makes it simply abominable. Before it has half done its work it begins to

blister the patient, and leaves him finally with a painful, flayed spot after having produced far less effect in a beneficial way than was intended. Now a mustard plaster should never make a blister at all. If a blister is wanted, there are other plasters far better than mustard for the purpose. When you make a mustard plaster, then, use no water whatever, but mix the mustard with the white of an egg, and the result will be a plaster which will "draw" perfectly, but will not produce a blister even upon the skin of an infant, no matter how long it is allowed to remain upon the part. For this we have the word of an old and eminent physician, as well as our own experience.

Poultices—Are usually made of linseed meal, oatmeal, or bread, either combined with water or other fluids; sometimes they are made of carrots, charcoal, potatoes, yeast, and linseed meal, mustard, etc., but the best and most economical kind of poultice is a fabric made of sponge and wool felted together, and backed by Indian rubber. It is called "Markwick's Patent Spongio-Piline." The method of using this poultice is as follows: A piece of the material of the required form and size is cut off, and the edges are pared or beveled off with a pair of scissors, so that the caoutchouc may come in contact with the surrounding skin, in order to prevent evaporation of the fluid used; for, as it only forms the vehicle, we can employ the various poultices generally used with much less expenditure of time and money, and increased cleanliness. For example: a *vinegar* poultice is made by moistening the fabric with distilled vinegar; an *alum* pooltice, by using a strong solution of alum; a *charcoal* poultice, by sprinkling powdered charcoal on the moistened surface of the material; a *yeast* poultice by using warmed yeast, and moistening the fabric with hot water, which is to be well squeezed out previous to the absorption of the yeast; a *beer* poultice, by employing warm porter-dregs or strong beer as the fluid; and a *carrot* poultice, by using the expressed and evaporated liquor of boiled carrots. The material costs about one farthing a square inch, and may be obtained of the chemist. As a fomentation it is most invaluable, and by moistening the material with compound camphor liniment or hartshorn, it acts the same as a mustard poultice. Full directions will, no doubt, be supplied to those who purchase the material, if inquired for.

POWDER, Aperient.—Take of the best Turkey rhubarb, cinnamon, and fine sugar, 2 drs. of each. Let the ingredients be pounded and afterwards mixed well together.

When flatulence is accompanied with costiveness, a tea-spoon of this powder may be taken once or twice a day, according to circumstances.

Powder, Carminative.—Take of coriander seeds, ½ oz.; ginger, 1 dr.; nutmegs, ½ dr.; fine sugar, 1½ drs.; reduce them into powder for 12 doses.

This powder is employed for expelling flatulency, arising from indigestion. It may be given in small quantities to children, in their food, when troubled with gripes.

Powder, Saline Laxative.—Take of soluble tartar, and cream-of-tartar, 1 dr. of each; purified nitre, ½ dr. Make them into a powder.

In fevers and other inflammatory disorders, where it is necessary to keep the body gently open, one of these cooling laxative powders may be taken in a little gruel, and repeated occasionally.

Powder, Steel.—Take filings of steel, and loaf sugar, 2 ozs. of each; ginger, 2 drs. Pound them together.

In obstructions of the menses, and other cases where steel is proper, a tea-spoon of this powder may be taken twice a day, and washed down with wine or water.

Powder, Sudorific.—Take purified nitre, and vitriolated tartar, ½ oz. of each; opium, and ipecacuanha, 1 dr. of each. Mix the ingredients, and reduce them to a fine powder.

This is known by the name of Dover's powder. It is a powerful sudorific. In obstinate rheumatism, and other cases where it is necessary to excite a copious sweat, this powder may be administered in the dose of a scruple, or half a drachm, accompanied with copious draughts of warm, diluting liquor.

Powder, Worm.—Take of tin, reduced into a fine powder, 1 oz.; Ethiop's mineral. 2 drs. Mix well together, and divide into six doses. One of these powders may be taken in a little syrup, honey, or molasses, twice a day. Then the following anthelmintic powder will be proper:

Powdered rhubarb, 1 scr.; scammony, and calomel, 5 grs. of each. Rub them in a mortar for one dose. For children, the above doses must be lessened according to their age. If the powder of tin be gven alone, its dose may be considerably increased.

PREGNANCY—A Good Medicine For.—Cinnamon water, 1 oz.; tincture of rhubarb, 2 drs.; compound spirits of lavender, ½ dr.; syrup of saffron, 1 dr. To be taken occasionally in the middle of the day.

RESTORATIVE WINE BITTERS.—Quassia, ¼ oz.; golden seal. 2 drs.; bitter-root, 2 drs.; cayenne pepper, 2 drs.; whitewood bark, 2 drs. Bruise all, and add 1 pt. of Holland gin, and 2 qts. of wine. A less quantity may be made. DOSE.—A table-spoon or two, twice a day. Remarkably useful in indigestion.

Another, by Dr. Thompson.—Balmony bark, 1 part; poplar bark, 5 parts. Boil in water sufficient to strain from one pound 2½ gals. of water, to which add sugar, 3½ lbs.; nerve powder, 2½ ozs.; while hot, strain, and add best Malaga wine, 3½ gals.; tincture of meadow-fern, 1 qt.; prickly-ash seeds, 1 qt. A less quantity may be made. DOSE.—From half to a wine-glass, twice a day.

These bitters are *priceless*. They are sure to correct the bile, and create an appetite, by giving tone to the digestive powers, and may be freely used, both as a restorative, and as a preventive of disease.

STIMULATING LINIMENT.—Cayenne, 1½ ozs.; salt, 1 table-spoon; spirits of wine, 2 ozs.; camphor, ½ oz.; spirits of turpentine, ¼ pt. Bottle, and shake now and then during one day. Then add ½ pt. of vinegar. It is excellent for sponging the body in cases of pain, debility, inflammation, rheumatism, gout, sore throat, numbness, neuralgia, etc.

SALINE MIXTURE.—Take of crystalized acid of lemon, 1 dr., or fresh lemon juice, 1½ ozs.; salt of wormwood, 1 dr.; white sugar, 3 drs.; pure water, 12 ozs.; essence of peppermint, 30 drops. Mix. A tea-cup to be taken often in inflammatory fevers and sore throat.

SWEATING DROPS.—Take of camphor, saffron, ipecacuanha, opium, Virginian snake-root, ½ oz. each; Holland gin, 1½ pts. Infuse two or three days.

A wonderfully efficacious cure for fever and ague, after suitable evacuants. Dr. Beach says: "I find this the best medicine for fever and ague of any with which I am acquainted. In two cases this tincture removed the paroxysms where other remedies failed; one patient had been under homeopathic treatment for many months."

SUDORIFICS.—Medicines causing much perspiration.

Sudorific, or Fever Powder.—Crawley root, 1 oz.; lobelia herb, ½ oz.. pleurisy root, 1 oz ; skunk cabbage, ½ oz. Powder, and mix them together. DOSE.—From a quarter to half a tea-spoon every 1½ hours, till perspiration is produced. It may be given in balm or common tea.

In fevers, inflammations, influenza, and colds, this powder is invaluable. It subdues irritation, corrects the pulse, improves respiration, and promotes sound, natural sleep. It is sure, if properly administered, to arrest a fever. Keep it in a bottle, well corked.

SLIPPERY ELM BARK.—This tree, *ulmus fulva*, is a native of this country. The powdered bark is now extensively sold and used. It is used as an article of diet for invalids, on account of its soothing and nutritious properties. Milk thickened with it makes excellent food for infants, for dyspeptic and consumptive patients; it subdues inflammation, and agreeably calms the system.

According to the celebrated Dr. Beach, it is "demulcent, pectoral diuretic, deobstruent, emollient, and refrigerant, useful in all bowel complaints, in scurvy, cutaneous eruptions, etc. In the form of a poultice, it is an admirable remedy (far exceeding any other known production in the world) for ulcers, tumors, swellings, wounds, chilblains, burns, scalds, skin diseases, erysipelas, obstinate ulcers, scabs, etc ; and in sore mouth, or thrush, etc., used as a wash." It quickly allays inflammation, promotes resolution and suppuration. The tea is much used by the Indian women to procure easy labor. In point of utility, it is of far more value than its weight in gold. It has rapidly come into use as an invaluable *medical* agent.

As an ingredient in injections, it is most valuable, healing, soothing, and preventing any painful sensations. It may be obtained at the vendors of botanic medicines.

TEMPERAMENT.—This is a term used by physiologists to distinguish a peculiar organization of the system common to certain groups of individuals, and which serves to define one individual or group from another. Physicians generally recognize four temperaments :

The Sanguine—Characterized by plumpness of body, with tolerable firmness of the flesh; the hair is red, or of a light chestnut, the eyes blue, and the complexion fair and florid, with a soft, thin skin. Such persons have large blood-vessels, an active circulation, and a full, quick pulse; the body is active, the countenance animated, the passions excitable, and the mind volatile but unsteady.

The Phlegmatic—Is distinguished by a round body, soft muscles, fullness of the cellular tissue; the hair is fair, the eyes light blue or gray, and the skin pallid. The blood-vessels are small, the circulation languid, and the pulse slow. All the functions, mentally and bodily, are torpid.

The Bilious.—This temperament is defined by a moderate fullness of body, with firm, hard flesh, and strongly defined outlines of person. The hair is black, the eyes and complexion dark, the pulse is full, firm, and of moderate quickness, and there is great energy both in body and mind; and, in conclusion, the features are strongly marked, bold, and prominent.

The Nervous.—This is characterized by a small, spare frame, slight muscular development, quick, impulsive movements, pallid countenance, and delicate health. The pulse is small and quick, and easily excited by mental emotions or nervous impressions; the whole nervous system is active, the senses acute and keen, the thoughts quick, and the imagination lively.

Though these temperaments are seldom found occurring in a pure form, they are sufficiently defined to be easily recognized; they, however, supply us with the following general facts, namely, that the *sanguine* temperament is most liable to acute inflammatory diseases, the *phlegmatic* to scrofulous complaints, the *bilious* to affections of the liver and the digestive organs, and the *nervous* to mental disorders and diseases of the nervous system generally.

YELLOW DOCK.—This plant is well known. The leaves are boiled and eaten. It is moderately astringent, and rather purgative. It is very appropriate for scrofulous complaints. In bilious complaints, internal heat, hectic fever, palpitation of the heart, piles, cutaneous eruptions, etc., it is most valuable.

The root may be given in decoction. A poultice of it is very good to discuss all indolent swellings. Made into an ointment, it is good for tetter, ringworm, etc.

TERMS USED TO EXPRESS THE PROPERTIES OF MEDICINES.—**Absorbents**—Are medicines which destroy acidities in the stomach and bowels, such as magnesia, prepared chalk, etc.

Alteratives—Are medicines which restore health to the constitution, without producing any sensible effect, such as sarsaparilla, sulphur, etc.

Analeptics—Are medicines that restore the strength which has been lost by sickness, such as gentian, bark, etc.

Anodynes—Are medicines which relieve pain, and they are divided into three kinds: *sedatives*, *hypnotics*, and *narcotics* (see these terms); camphor is anodyne as well as narcotic.

Antacids—Are medicines which destroy acidity, such as lime, magnesia, soda, etc.

Antalkalies—Are medicines given to neutralize alkalies in the system, such as citric, nitric, or sulphuric acids, etc.

Anthelmintics—Are medicines used to expel and destroy worms from the stomach and intestines, such as turpentine, cowhage, male fern, etc.

Antibilious—Are medicines which are useful in bilious affections, such as calomel, etc.

Antirheumatics—Are medicines used for the cure of rheumatism, such as colchicum, iodide of potash, etc.

Antiscorbutics—Are medicines against scurvy, such as citric acid, etc.

Antiseptics—Are substances used to correct putrefaction, such as bark, camphor, charcoal, vinegar, and creosote.

Antispasmodics—Are medicines which possess the power of overcoming spasms of the muscles, or allaying severe pain from any cause unconnected with inflammation, such as valerian, ammonia, opium, and camphor.

Aperients—Are medicines which move the bowels gently, such as rhubarb, manna, and gray powder.

Aromatics—Are cordial, spicy, and agreeably flavored medicines, such as cardamoms, cinnamon, etc.

Astringents—Are medicines which contract the fibres of the body, diminish excessive discharges, and act indirectly as tonics, such as oak bark, galls, etc.

Attenuants—Are medicines which are supposed to thin the blood, such as ammoniated iron, etc.

Balsamics—Are medicines of a soothing kind, such as tolu, Peruvian balsam, etc.

Carminatives—Are medicines which allay pain in the stomach and bowels, and expel flatulence, such as anise-seed water, etc.

Cathartics—Are strong purgative medicines, such as jalap, etc.

Cordials—Are exhilarating and warming medicines, such as aromatic confection, etc.

Corroborants—Are medicines and food which increase the strength, such as iron, gentian, meat, and wine.

Demulcents—Correct acrimony, diminish irritation, and soften parts by covering their surfaces with a mild and viscid matter, such as linseed tea, gum, mucilage, honey, and marshmallow.

Deobstruents—Are medicines which remove obstructions, such as iodide of potash, etc.

Detergents—Clean the surfaces over which they pass, such as soap, etc.

Diaphoretics—Produce perspiration, such as tartrate of antimony, James's powder, and camphor.

Digestives—Are remedies applied to ulcers or wounds, to promote the formation of matter, such as resin ointments, warm poultices, etc.

Discutients—Possess the power of repelling or resolving tumors, such as galbanum, mercury, and iodine.

Diuretics—Act upon the kidneys and bladder, and increase the flow of urine, such as nitre, squills, cantharides, camphor, antimony and juniper.

Drastics—Are violent purgatives, such as gamboge, etc.

Emetics—Produce vomiting, or the discharge of the contents of the stomach, such as mustard and hot water, tartar emetic, ipecacuanha sulphate of zinc, and sulphate of copper.

Emollients—Are remedies used externally to soften the parts they are applied to, such as spermaceti, palm oil, etc.

Epispastics—Are medicines which blister or cause effusion of serum under the cuticle, such as Spanish flies, Burgundy pitch, resin and galbanum.

Errhines—Are medicines which produce sneezing, such as tobacco, etc.

Escharotics—Are medicines which corrode or destroy the vitality of the part to which they are applied, such as lunar caustic, etc.

Expectorants—Are medicines which increase expectoration, or the discharge from the bronchial tubes, such as ipecacuanha, squills, opium ammoniacum.

Febrifuges—Are remedies used in fevers, such as all the antimonials, bark, quinine, mineral acids, arsenic.

Hydragogues—Are medicines which have the effect of removing the fluid of dropsy, by producing watery evacuations, such as gamboge, calomel, etc.

Hypnotics—Are medicines that relieve pain by procuring sleep such as hops, henbane, morphia, poppy.

Laxatives—Are medicines which cause the bowels to act rather more than natural, such as manna, etc.

Narcotics—Are medicines which cause sleep or stupor, and allay pain, such as opium, etc.

Nutrients—Are remedies that nourish the body, such as sugar, sago, etc.

Paregorics—Are medicines which actually assuage pain, such as compound tincture of camphor, henbane, hops, opium.

Prophylactics—Are remedies employed to prevent the attack of any particular disease, such as quinine, etc.

Purgatives—Are medicines that promote the evacuation of the bowels, such as senna, aloes, jalap, salts.

Refrigerants—Are medicines which suppress an unusual heat of the body, such as wood sorrel, tamarind, etc.

Rubefacients—Are medicaments which cause redness of the skin, such as mustard, etc.

Sedatives—Are medicines which depress the nervous energy, and destroy sensation, so as to compose, such as fox-glove. (See "Paregorics.")

Sialogogues—Are medicines which promote the flow of saliva or spittle, such as salt, calomel, etc.

Soporifics—Are medicines which induce sleep, such as hops, etc.

Stimulants—Are remedies which increase the action of the heart and arteries, or the energy of the part to which they are applied, such as food, wine, spirits, ether, sassafras, which is an internal stimulant, and savine, which is an external one.

Stomachics—Restore the tone of the stomach, such as gentian, etc.

Styptics—Are medicines which constrict the surface of a part, and prevent the effusion of blood, such as kino, Friar's balsam, extract of lead, and ice.

Sudorifics—Promote profuse perspiration or sweating, such as ipecacuanha, antimony, James's powder, ammonia.

Tonics—Give general strength to the constitution, restore the natural energies, and improve the tone of the system, such as all the vegetable bitters, most of the minerals, also some kinds of food, wine, and beer.

Vesicants—Are medicines which blister, such as strong liquid ammonia, etc.

DOMESTIC PHARMACOPŒIA.—In compiling this part of our hints, we have endeavored to supply that kind of information which is so often wanted in the time of need, and cannot be obtained when a medical man or a druggist is not near. The doses are fixed for adults, unless otherwise ordered. The various remedies are arranged in sections, according to their uses, as being more easy for reference.

COLLYRIA, OR EYE WASHES.—Alum.—Dissolve ½ dr. in 8 ozs. of water. *Use*, as an astringent. When the strength of the alum is doubled, and only half the quantity of water used, it acts as a discutient, but not as an eye water.

Common.—Add ½ oz. of diluted acetic to 3 ozs. of decoction of poppy heads. *Use*, an anodyne wash.

Compound Alum.—Dissolve alum and white vitriol, of each 1 dr. in 1 pt. of water, and filter, through paper. *Use*, as an astringent wash.

Zinc and Lead.—Dissolve white vitriol and acetate of lead, of each, 7 grs. in 4 ozs. of elder-flower water; add 1 dr. of laudanum (tincture of opium), and the same quantity of spirit of camphor; then strain. *Use*, as a detergent wash.

Acetate of Zinc.—Dissolve ½ a dr. of white vitriol in 5 ozs. of water. Dissolve 2 scrs. of acetate of lead in five ozs. of water. Mix these solutions, then set aside for a short time and filter. *Use*, as an astringent; this forms a most valuable collyrium.

Sulphate of Zinc.—Dissolve 20 grs. of white vitriol in 1 pt. of water or rose water. *Use*, for weak eyes.

Zinc and Camphor.—Dissolve 1 scr. of white vitriol in 10 ozs. of water, then add 1 dr. of spirit of camphor, and strain. *Use*, as a stimulant.

Compound Zinc.—Dissolve 15 grs. of white vitriol in 8 ozs. of camphor water (*Mistura camphoræ*), and the same quantity of poppy heads. *Use*, as an anodyne and detergent; useful for weak eyes.

CONFECTIONS AND ELECTUARIES.—Confections are used as vehicles for administration of more active medicines, and *Electuaries* are made for the purpose of rendering some remedies palatable. Both should be kept in closely covered jars.

Almond Confection.—Remove the outer coat from 1 oz. of sweet almonds, and beat them well in a mortar with 1 dr. of powdered gum arabic, ½ oz. of white sugar. *Use*, to make a demulcent mixture, known as "almond emulsion."

Alum Confection.—Mix 2 scrs. of powdered alum with 4 scrs. of molasses. DOSE, ½ dr. *Use*, as an astringent in sore throat and relaxed uvula, and ulcerations of the mouth.

Orange Confection.—Take 1 oz. of the freshly rasped rind of orange, and mix it with 3 ozs. of white sugar, and beat together till perfectly incorporated. DOSE, from 1 dr. to 1 oz. *Use*, as a gentle stomachic and tonic, and for giving tonic powders in.

Black Pepper Confection.—Take of black pepper and elecampane root, of each, 1 oz.; fennel seeds, 3 ozs.; honey and sugar, of each, 2 ozs. Rub the dry ingredients to a fine powder, and when the confection is wanted, add the honey and mix well. DOSE, from 1 to 2 drs. *Use*, in hæmorrhoids, or piles.

Cowhage.—Mix as much of the fine hairs or spiculæ of cowhage into molasses as it will take up. DOSE, a teaspoonful every morning and evening. *Use*, as an anthelmintic.

Senna Confection.—Take of senna, powdered, 4 ozs.; figs, ½ lb.; cassia pulp, tamarind pulp, and the pulp of prunes, of each 4 ozs., coriander seeds, powdered 2 ozs.; licorice root, 1½ ozs.; sugar, 1½ lbs.; water, 1½ pts. Rub the senna with the coriander, and separate by sifting, 5 ozs. of the mixture. Boil the water, with the figs and licorice added, until it is reduced to one half; then press out and strain the liquor. Evaporate the strained liquor in a jar by boiling until twelve fluid ounces remain. Then add the sugar, and make a syrup. Now mix the pulps with the syrup, add the sifted powder, and mix well. *Use*, purgative.

Castor Oil and Senna Confection.—Take 1 dr. of powdered gum arabic, and 2 ozs of confection of senna, and mix, by gradually rubbing together in a mortar, with ½ oz. of castor oil. DOSE, from ½ oz. to 1 oz. *Use*, purgative.

Sulphur and Senna Confection.—Take of sulphur and sulphate of potash, of each, ½ oz.; of confection of senna, 2 ozs.; and oil of anise-seed, twenty minims; mix well. DOSE, from 1 to 2 drs. *Use*, purgative.

Cream-of-Tartar Confection.—Take 1 oz. of cream-of-tartar, 1 dr. of jalap, and ½ dr. of powdered ginger; mix into a thick paste with molasses. DOSE, 2 drs. *Use*, purgative.

Anti-Spasmodic Electuary.—Take 6 drs. of powder valerian and orange leaves, mixed and made into an electuary, with a sufficient quantity of syrup of wormwood. DOSE, from 1 to 2 drs., to be taken two or three times a day.

DECOCTIONS.—These should only be made as they are wanted; pipkins or tin saucepans should be used for the purpose; and no decoction should be boiled longer than ten minutes.

Chimaphila.—Take 1 oz. of pyrola (chimaphila, or winter-green), and boil [redacted] pts. water until it is only 1 pt.; then strain. DOSE, from 1 f[redacted]r times a day. *Use*, in dropsies, as a diuretic.

Logwood.—Boil 1½ ozs. of bruised logwood in 2 pts. of water until it comes to 1 pt.; then add 1 dr. of bruised cassia, and strain. DOSE, from 1 to 2 ozs. *Use*, as an astringent.

Dandelion.—Take 2 ozs. of freshly-sliced root, and boil in 2 pts. of water until it comes to 1 pt.; then add 1 oz. of compound tincture of horseradish. DOSE, from 2 to 4 ozs. *Use*, in a sluggish state of the liver.

EMBROCATIONS AND LINIMENTS.—These remedies are used externally as local stimulants, to relieve deep-seated inflammations when other means cannot be employed, as they are more easily applied locally.

Anodyne and Discutient.—Take 2 drs. of scraped white soap, ½ dr. of extract of henbane, and dissolve them by a gentle heat in 6 ozs. of olive oil. *Use*, about ½ oz. to be well rubbed into the part twice a day, for glandular enlargements which are painful and stubborn.

Strong Ammoniated.—Add 1 oz. of strong liquid ammonia (*Liquoris ammoniæ fortius*) to 2 ozs. of olive oil; shake them well together until they are properly mixed. *Use*, employed as a stimulant in rheumatic pains, paralytic numbnesses, chronic glandular enlargements, lumbago, sciatica, etc. This embrocation must be used with care, and only employed in very obstinate cases.

Compound Ammoniated.—Add 6 drs. of oil of turpentine to the strong ammoniaetd liniment above. *Use*, for the diseases mentioned under the head of strong ammoniated liniment, and chronic affections of the knee and ankle joints.

Lime and Oil.—Take equal parts of common linseed oil and lime water (*Liquor calcis*), and shake well. *Use*, applied to burns, scalds, sun peeling, etc.

Camphorated.—Take ½ oz. of camphor and dissolve it in 2 ozs. olive oil. *Use*, as a stimulant, soothing application, in stubborn breasts, glandular enlargements, dropsy of the belly, and rheumatic pains.

Soap Liniment with Spanish Flies.—Take 3½ ozs. of soap liniment, ½ oz. of tincture of Spanish flies; mix and shake well. *Use*, as a stimulant to chronic bruises, sprains, rheumatic pains, and indolent swellings.

Turpentine.—Take 2½ ozs. of resin cerate (*Ceratum resinæ*), and melt it by standing the vessel in hot water; then add 1½ ozs. of oil of turpentine, and mix. *Use*, as a stimulant application to ulcers, burns, scalds, etc.

ENEMAS.—These are a peculiar kind of medicines, administered by injecting them into the rectum or outlet of the body. The intention is either to empty the bowels, kill worms, protect the lining membrane of the intestines from injury, restrain copious discharges, allay spasms in the bowels, or to nourish the body. These clysters, or glysters, are administered by means of bladders and pipes, or a proper apparatus.

Laxative.—Take 2 ozs. of Epsom salts, and dissolve in ¾ of a pt. of gruel, or thin broth, with 1 oz. of olive oil. *Use*, as all enemas are used.

Nutritive.—Take 12 ozs. of strong beef tea, and thicken with harts-horn shavings or arrowroot.

Turpentine.—Take ½ oz. of turpentine, the yolk of one egg, and ½ pt. of gruel. Mix the turpentine and egg, and then add the gruel. *Use*, as an athelmintic.

Common.—Dissolve 1 oz. of salt in 12 ozs. of gruel.

Castor Oil.—Mix 2 ozs. of castor oil with 1 dr. of starch, then rub them together, and add 14 ozs. of thin gruel. *Use*, purgative.

Opium.—Rub 3 grs. of opium with 2 ozs. of starch, then add 2 ozs. of warm water. *Use*, as a anodyne, in colic, spasms, etc.

Oil.—Mix 4 ozs. of olive oil with ½ oz. of mucilage and ½ pt. of warm water. *Use*, as a demulcent.

Assafœtida.—Mix 1 dr. of the tincture of assafœtida in 1 pt. of barley water *Use*, as an anthelmintic, or in convulsions from teething.

GARGLES.—These are remedies used to stimulate chronic sore throats, or a relaxed state of the swallow, or uvula,

Acidulated.—Mix one part of white vinegar with three parts of honey of roses, and twenty-four of barley water. *Use*, in chronic inflammations of the throat, malignant sore throat, etc.

Astringent.—Take 2 drs. of roses and mix with 8 ozs. of boiling water, infuse for one hour, strain, and add 1 dr. of alum and 1 oz. of honey of roses. *Use*, in severe sore throat, relaxed uvula, etc.

For Salivation.—Mix from 1 to 4 drs. of bruised gall-nuts with 1 pt. of boiling water, and infuse for two hours, then strain and sweeten.

Tonic and Stimulant.—Mix 6 ozs. of decoction of bark with 2 ozs. of tincture of myrrh, and ½ dr. of diluted sulphuric acid. *Use*, in scorbutic affections.

Alum.—Dissolve 1 dr. of alum in 15 ozs. of water, then add ½ oz. molasses and 1 dr. of diluted sulphuric acid. *Use*, astringent.

Myrrh.—Add 6 drs. of tincture of myrrh to 7 ozs. of infusion of linseed, and then add 1 dr. of diluted sulphuric acid. *Use*, as a detergent.

For Slight Inflammation of the Throat.—Add 1 dr. of sulphuric ether to ½ oz. of syrup of marsh-mallows, and 6 ozs. of barley water. This may be used frequently.

LOTIONS.—Lotions are usually applied to the parts required by means of a piece of linen rag or piline, wetted with them, or by wetting the bandage itself.

Emollient.—Use decoction of marsh-mallow or linseed.

Elder Flowers.—Add 2½ drs. of elder flowers to 1 qt. of boiling water. infuse for one hour, and strain. *Use*, as a discutient.

Sedative.—Dissolve 1 dr. of extract of henbane in 24 drs. of water.

Opium.—Mix 2 drs. of brusied opium with ½ pt. of boiling water, allow it to grow cold, and *use* for painful ulcers, bruises, etc.

Stimulant.—Dissolve 1 dr. of caustic potash in 1 pt. of water, and then gradually pour it upon 24 grs. of camphor and one dr. of sugar, previously bruised together in a mortar. *Used* as in fungoid and flabby ulcers.

Ordinary.—Mix 1 dr. of salt with 8 ozs. of water. *Used* for foul ulcers and flabby wounds.

Cold Evaporating.—Add 2 drs. of Goulard's extract (*Liquor plumbi diacetatis*), and the same quantity of sulphuric ether (*Ether sulphuricus*), to 1 pt. of cold water. *Use*, as a lotion for contusions, sprains, inflamed parts, etc.

Hydrochlorate of Ammonia.—Dissolve 2 drs. of sal ammoniac (*Ammoniæ hydrochloras*) in 6 ozs. of water, then add 1 oz. of distilled vinegar and the same quantity of rectified spirit. *Use*, as a refrigerant.

Yellow Lotion.—Dissolve 1 gr. of corrosive sublimate (*Hydrargyri chloridum*, A VIOLENT POISON) in 1 oz. of lime water, taking care to bruise the chrystals of the salt in order to assist its solution. *Use*, as a detergent.

Black Wash.—Add ½ dr. of calomel to 4 ozs. of lime water, or 8 grs. to 1 oz. of lime water; shake well. *Use*, as a detergent.

Acetate of Lead with Opium.—Take 20 grs. of acetate of lead, and

1 dr. of powdered opium, mix, and add 1 oz. of vinegar and 4 ozs of warm water, set aside for an hour, then filter. *Use*, as astringent.

Creosote.—Add 1 dr. of creosote to 1 pt of water, and mix by shaking. *Use*, as an application in *tinea capitis*, or other cutaneous diseases.

Galls.—Boil 1 dr. of bruised galls in 12 ozs. of water until only ½ pt. remains, then strain, and add 1 oz. of laudanum. *Use*, as an astrigent and sedative.

OINTMENTS AND CERATES.—These remedies are used as topical applications to parts, generally ulcers, and are usually spread upon linen or other materials.

Camphorated.—Mix ½ oz. of camphor with 1 oz. of lard, having, of course, previously powdered the camphor, by adding a few drops of spirit of wine. *Use*, as a discutient and stimulant in indolent tumors.

Chalk.—Mix as much prepared chalk as you can into some lard, so as to form a thick ointment. *Use*, as an application to burns and scalds.

For Itch.—Mix 4 drs. of sublimed sulphur, 2 ozs. of lard, and ½ dr. of diluted sulphuric acid together. This is to be rubbed into the body.

For Scrofulous Ulcerations.—Mix 1 dr. of ioduret of zinc and 1 oz. of lard together. *Use*, twice a day to the ulcerations.

Catechu.—Mix 1 oz. of powdered catechu, 2½ drs. of powdered alum, 1 oz. of powdered white resin, and 2½ ozs. of olive oil, together. *Use*, to apply to flabby and indolent ulcerations.

Tartar Emetic.—Mix 20 grs. of tartar emetic and 10 grs. of white sugar with 1½ drs. of lard. *Use*, as a counter-irritant in white swellings, etc.

PILLS.—Strong Purgative.—Take of powdered aloes, scammony and gamboge, of each, 15 grs., mix and add sufficient Venice turpentine to make into a mass, then divide into 12 pills. DOSE, one or two occasionally.

Milder Purgative.—Take 4 grs. of powdered scammony, and the same quantity of compound extract of colocynth, and 2 grs. of calomel; mix well, and add 2 drops of oil of cloves, or thin gum-water, to enable the ingredients to combine properly, and divide into 2 pills. DOSE, one or two when necessary.

Common Purgative.—Take of powdered jalap and compound extract of colocynth each 4 grs., of calomel 2 grs.; mix as usual, and divide into 2 pills. DOSE, one or two occasionally.

TONIC.—Mix 24 grs. of extract of gentian and the same of purified green vitrol (*sulphate of iron*) together, and divide into 12 pills. DOSE, one or two when necessary. *Use*, in debility.

Cough.—Mix 1 dr. of compound powder of ipecacuanha with 1 scr. of gum ammoniacum and 1 of dried squill bulb in powder. Make into a mass with mucilage, and divide into 20 pills. DOSE.—One, three times a day.

Astringent.—Mix 16 grs. of acetate of lead (*sugar of lead*) with 4 grs. of opium, and make into a mass with extract of dandelion, so as to make eight pills. DOSE, from one to two. *Use*, as an astringent in obstinate diarrhea, dysentery, and spitting of blood.

MIXTURES.—Fever, Simple.—Add 3 ozs. of spirit of mindererus (*Liquor ammoniæ acetatis*), 3 drs. of spirits of sweet nitre, 4 drs. of antimoninal wine, and 1 dr. of syrup of saffron, to 4 ozs of water, or medicated water, such as cinnamon, anise-seed, etc. DOSE for an adult, one or two tablespoonfuls every three hours. *Use*, as a diaphoretic.

Aromatic.—Mix 2 drs. of aromatic confection with 2 drs. of compound tincture of cardamoms, and 8 ozs. of peppermint water. DOSE, from 1 oz. to 1½ ozs. *Use*, in flatulent colic and spasms of the bowels.

Cathartic.—Dissolve 2 ozs. of Epsom salts in 6 ozs. of compound infusion of senna, then add 2 ozs. of peppermint water. DOSE, from 1½ to 2 ozs. *Use*, as a warm and active cathartic.

Diuretic.—Dissolve in 3 ozs. of camphor mixture, 1 dr. of powdered nitre; add 5 ozs. of the decoction of broom, with 6 drs. of sweet spirits of nitre, and 3 drs. of tincture of squills; mix. DOSE, one teaspoonful every two hours, or two tablespoonfuls every three hours. *Use*, excellent in dropsies.

Cough.—Dissolve 3 grs. of tartar emetic and 15 grains of opium in 1 pt. of boiling water, then add 4 ozs. of molasses, 2 ozs. of vinegar, and 1 pt. of boiling water. DOSE, from two teaspoonfuls to two tablespoonfuls, according to circumstances, every three hours, or three times a day. *Use*, in common catarrh, bronchitis, and irritable cough.

Cough—For Children.—Mix 3 drs. of ipecacuanha wine with ½ oz. of oxymel of squills, the same quantity of syrup of tolu, 1 oz. of mucilage, and 2 ozs. of water. DOSE, one teaspoonful for children under one year, two teaspoonfuls from one to five years, and a tablespoonful for five years, every time the cough is troublesome.

Anti-Spasmodic.—Dissolve 50 grs. or camphor in 2 drs. of chloroform, and then add 2 drs. of compound tincture of lavender, six drs. of mucilage of gum arabic, 8 ozs. of anise-seed, cinnamon, or some other aromatic water, and 2 ozs. of distilled water; mix well. DOSE, one tablespoonful every half hour if necessary. *Use*, in cholera in the cold stage, when cramps are severe, or exhaustion very great; and as a general anti-spasmodic in doses of one dessert-spoonful when the spasms are severe.

Tonic and Stimulant.—Dissolve 1 dr. of extract of bark, and ½ dr. of powdered gum arabic, in 6 ozs. of water, and then add 1 oz. of syrup of marsh-mallow, and the same quantity of syrup of tolu. DOSE one tablespoonful every three hours. *Use*, after fevers and catarrhs.

Stomachic.—Take 20 grs. of powdered rhubarb, and rub it down in 3½ ozs. of peppermint water, then add sal volatile and compound tincture of gentian, of each, 1½ drs.; mix. DOSE, from 1 oz. to 1½ ozs. *Use*, as a tonic, stimulant, and stomachic.

DRINKS.—Tamarind.—Boil 2 ozs. of the pulp of tamarinds in 2 pts. of milk, then strain. *Use*, as a refrigerant drink.

Tamarind.—Boil 2 ozs of the pulp in 2 pts. of warm water, and allow it to get cold, then strain. *Use*, refrigerant.

POWDERS.—Compound Soda.—Mix 24 grs. of calomel, 36 grs. of sesqui-carbonate of soda, and 1 dr. of compound chalk powder, together. Divide into 12 powders. One of the powders to be given for a dose when required. *Use*, as a mild purgative for children during teething.

Tonic.—Mix 1 dr. of powdered rhubarb with the same quantity of dried carbonate of soda, then add 2 drs. of powdered calumba root. DOSE, from 10 to 20 grs. as a tonic after fevers, in all cases of debility, and dyspepsia attended with acidity.

Rhubarb and Magnesia.—Mix 1 dr. of powdered rhubarb with 3 drs. of carbonate of magnesia, and ½ dr. of ginger. DOSE, from 15 grs. to 1 dr. *Use*, as a purgative for children.

Sulphur and Potash.—Mix 1 dr. of sulphur with 4 scrs. of bicarbonate of potash, and 2 scrs. of nitre. DOSE, from ½ dr. to 1 dr. *Use*, as a purgative, diuretic, and refrigerant.

Anti-Diarrheal.—Mix 1 gr. of powdered ipecacuanha, and 1 gr. of powdered opium, with the same quantity of camphor. DOSE, one of these powders to be given in jam, molasses, etc., once or twice a day; but to adults only.

Anti-Spasmodic.—Mix 4 grs. of subnitrate of bismuth, 48 grs. of carbonate of magnesia, and the same quantity of white sugar, and then divide into four equal parts. DOSE, one-fourth part. *Use*, in obstinate pain in the stomach with cramps, unattended by inflammation.

Anti-Pertussal, or Against Whooping-Cough.—Mix 1 dr. of powdered belladona root, and 2 ozs. of white sugar, together. DOSE, 6 grs. morning and evening for children under one year; 9 grs. for those under two and three years of age; 15 grs. for those between five and ten; and 30 grs. for adults. *Caution.* This should be prepared by a chemist, as the belladona is a poison, and occasional doses of castor oil should be given while it is being taken.

Purgative—Common.—Mix 10 grs. of calomel, with 1 dr. of powdered jalap, and 20 grs. of sugar. DOSE, one-half of the whole for adults.

Sudorific.—Mix 6 grs. of compound antimonial powder, 2 grs. of ipecacuanha, and 2 grs. of sugar, together. DOSE, as mixed, to be taken at bed-time. *Use.* in catarrh and fever.

MISCELLANEOUS.—Etheral Tincture of Male Fern.—Digest 1 oz. male fern buds in 8 ozs. of sulphuric ether, then strain. DOSE, thirty drops early in the morning. *Use*, to kill tapeworm.

Emulsion—Laxative.—Rub down 1 oz. of castor oil in 2 drs. of mucilage of gum arabic, add 3 ozs. of dill water, and a dr. of tincture of jalap, gradually. DOSE, as prepared, the whole to be taken while fasting in the morning.

Emulsion—Purgative.—Rub down 6 grs. of scammony with 6 drs. of white sugar in a mortar, and gradually add 4 ozs. of almond emulsion, and two drops of oil of cloves. DOSE, as prepared, early in the morning.

To Prevent Pitting After Small-Pox.—Spread a sheet of thin leather with the ointment of ammoniacum with mercury, and cut out a place for the mouth, eyes, and nostrils. This forms what is called a mask, and, after anointing the eyelids with a little blue ointment (*Unaguentum hydrargyri*), it should be applied to the face, and allowed to remain for three days for the distinct kind, and four days for the running variety. *Period to apply it: Before* the spots fill with matter, although it will answer sometimes even after they have become pustulous. It may be applied to any part in the same way.

Another Method.—And one more reliable, is that of touching every pustule, or poc, on the face or bosom with a camel-hair pencil dipped in a weak solution of lunar caustic (*nitrate of silver*), made in the proportion of 2 grs. of nitrate of silver to 1 oz. of distilled water. The time for the application is about the seventh day, while each pustule is filled with a limpid fluid, or before suppuration takes place, the lotion arresting that action, and by preventing the formation of matter, saving the skin from being pitted; a result that follows from the conversion of the adispose tissue into pus.

A third method of effecting the same purpose is by passing a fine needle through each poc, when fully distended with lymph; the escape of the fluid averting, as in the other mode, the suppuration which would otherwise ensue.

Mucilage of Gum Arabic.—Rub 1 oz. of gum arabic in a mortar, with 4 ozs. of warm water. *Use*, for coughs, etc.

Mucilage of Starch.—Rub 1 dr. of starch with a little water, and gradually add 5 ozs. of water, then boil until it forms a mucilage. *Use*, for enemas, topical applications, and demulcents.

DISEASES.*—It should be clearly understood, that in all cases of disease, the advice of a skillful physician is of the first importance. It is not, therefore, intended by the following information to supersede the important and necessary practice of the medical man; but rather, by exhibiting the treatment required, to show in what degree his aid is imperative. In cases, however, where the disorder may be simple and transient, or in which remote residence, or other circumstances, may deny the privilege of medical attendance, the following particulars will be found of the utmost value. Moreover, the hints given upon what should be AVOIDED will be of great service to the patient, since the *physiological* is no less important than the *medical* treatment of disease.

Apoplexy.—Immediate and large bleeding from the arm, cupping at the back of the neck, leeches to the temples, aperients Nos. 1 and 7, one or two drops of croton oil rubbed or dropped on the tongue. Avoid excesss, intemperance, animal food.

Bile, Bilious, or Liver Complaints.—Abstinence from malt liquors, cool homeopathic cocoa for drink, no tea or coffee, few vegetables, no broths or soups; lean, juicy meat not overcooked for dinner with occasionally stale bread and a slice of toasted bacon for breakfast Nos. 59 and 60.

Chicken Pox.—Mild aperients, No. 4, succeeded by No. 7, and No. 8, if much fever accompany the eruption.

Chilblains.—Warm, dry woolen clothing to exposed parts in cold weather, as a preventive. In the first stage, frictions with No. 63, used cold. When ulcers form they should be poulticed with bread and water for a day or two, and then dressed with calamine cerate. Or chilblains in every stage, whether of simple inflammation or open ulcer, may always be successfully treated by the extract of lead (*Liquor plumbi acetatis*), used pure or applied on lint twice a day.

Common Continued Fever.—Aperients in the commencement, No 1, followed by No. 7, then diaphoretics, No. 8, and afterwards tonics, No. 16, in the stage of weakness. Avoid all excesses.

Common Cough.—The linctus, No. 57 or No. 58, abstinence from malt liquor, and protection from cold damp air. Avoid cold, damp and draughts

Constipation.—The observance of a regular period of evacuating the bowels, which is most proper in the morning after breakfast. The use of mild aperients, No. 62, brown bread instead of white. There should be an entire change in the dietary for a few days while taking opening medicine.

Consumption.—The disease may be complicated with various morbid conditions of the lungs and heart, which require appropriate treatment. To allay the cough, No. 57 is an admirable remedy. Avoid cold, damp, excitement and over exertion.

Convulsions—Children.—If during teething, free lancing of the gums, the warm bath, cold applications to the head, leeches to the temples, an emetic, and a laxative clyster, No. 24.

Croup.—Leeches to the throat, with hot fomentations as long as the attack lasts; the emetic, No. 19, afterwards the aperient, No. 5. Avoid cold and damp.

*For the proper Remedies and their Doses see "Perscriptions," and also the various diseases under their respective heads.

Dropsy.—Evacuate the water by means of No. 11, and by rubbing camphorated oil into the body night and morning.

Epilepsy.—If accompanied or produced by fulness of the vessels of the head, leeches to the temples, blisters, and No. 1 and No. 7 If from debility or confirmed epilepsy, the mixture, No. 22. Avoid drinking and excitement.

Eruptions on the Face.—The powder, No. 34, internally, sponging the face with the lotion, No. 35. Avoid excesses in diet.

Erysipelas.—Aperients, if the patient be strong, No. 1, followed by No. 7, then tonics, No. 31; No. 31 from the commencement in weak subjects.

Faintness.—Effusion of cold water on the face, stimulants to the nostrils, pure air, and the recumbent position; afterwards, avoidance of the exciting cause. Avoid excitment.

Frost-bite and Frozen Limbs.—No heating or stimulating liquors must be given. Rub the parts affected with ice, cold, or snow water and lay the patient on a cold bed.

Gout.—The aperients, No. 1, followed by No. 28, bathing the parts with gin-and-water; for drink, weak tea or coffee. Warmth by flannels Abstain from wines, spirits, and animal food.

Gravel.—No. 5, followed by No. 7, the free use of magnesia as an aperient. The pill No. 26. Abstain from fermented drinks, hard water. Another form of gravel must be treated by mineral acids, given three times a day.

Whooping Cough.—Whooping cough may be complicated with congestion or inflammation of the lungs, or convulsions, and then becomes a serious disease. If uncomplicated, No. 58.

Hysterics.—The fit may be prevented by the administration of thirty drops of laudanum, and as many of ether. When it has taken place open the windows, loosen the tight parts of the dress, sprinkle cold water on the face, etc. A glass of wine or cold water when the patient can swallow. Avoid excitement and tight lacing.

Indigestion.—The pills No. 2, with the mixture No. 22, at the same time abstinence from veal, pork, mackarel, salmon, pastry, and beer; for drink, homeopathic cocoa, a glass of cold spring water the first thing every morning. Avoid excesses.

Inflammation of the Bladder.—Bleeding, aperients No. 5 and No. 7, the warm bath, afterwards opium; the pill No. 12, three times a day till relieved. Avoid fermented liquors, etc.

Inflammation of the Bowels.—Leeches, blisters, fomentations, hot baths, iced drinks, the pills No. 33; move the bowels with clysters, if necessary, No. 24. Avoid cold, indigestible food, etc.

Inflammation of the Brain.—Application of cold to the head, bleeding from the temples or back of the neck by leeches or cupping; aperients No. 1, followed by No. 7; mercury to salivation, No. 18. Avoid excitement, study, intemperance.

Inflammation of the Kidneys.—Bleeding from the arm, leeches over the seat of pain, aperients No. 5, followed by No. 64, the warm bath. Avoid violent exercise, rich living.

Inflammation of the Liver.—Leeches over the right side, the seat of pain, blisters, aperients No. 1, followed by No. 7, afterwards the pills No. 23, till the gums are slightly tender. Avoid cold, damp, intemperance, and anxiety.

Inflammation of the Lungs.—Bleeding from the arm or over the painful part of the chest by leeches, succeeded by a blister; the demulcent mixture, No. 17, to allay the cough, with the powders No. 18. Avoid cold, damp, and draughts.

Inflammation of the Stomach.—Leeches to the pit of the stomach, followed by fomentations, cold iced water for drink, bowels to be evacuated by clysters; abstinence from all food except cold gruel, milk and water, or tea. Avoid excesses, and condiments.

Inflammatory Sore Throat.—Leeches and blisters externally, aperients No. 1, followed by No. 7, gargle to clear the throat, No. 20. Avoid cold, damp, and draughts.

Inflamed Eyes.—The bowels to be regulated by No. 5, a small blister behind the ear or on the nap of the neck—the eye to be bathed with No. 39.

Influenza.—No. 4 as an aperient and diaphoretic. No. 17 to allay fever and cough. No. 31 as a tonic, when weakness only remains. Avoid cold and damp, use clothing suited to the changes of temperature.

Intermittent Fever, or Ague.—Take No. 16 during the intermission of the paroxysm of the fever; keep the bowels free with a wine glass of No. 7. Avoid bad air, stagnant pools, etc.

Itch.—The ointment of No. 32, or lotion No. 33.

Jaundice.—The pills No. 1, afterwards the mixture No. 7, drinking freely of dandelion tea.

Looseness of the Bowels—English Cholera.—One pill No. 23, repeated if necessary; afterwards the Mixture No. 25. Avoid unripe fruits, acid drinks, ginger beer; wrap flannel around the abdomen.

Measles.—A well ventilated room, aperients, No. 4, with No. 17 to allay the cough and fever.

Menstruation—Excessive.—No. 47 during the attack, with rest in the recumbent position; in the intervals, No. 46.

Menstruation—Scanty.—In strong patients, cupping the loins, exercise in the open air, 47, the feet in warm water before the expected period, the pills No. 45; in weak subjects, No. 46. Gentle and regular exercise. Avoid hot rooms, and too much sleep.

Menstruation—Painful.—No. 48 during the attack; in the intervals, No. 45 twice a week, with No. 46. Avoid cold, mental excitement, etc.

Mumps.—Fomentation with a decoction of camomiles and poppy heads; No. 4 as an aperient, and No. 9 during the stage of fever. Avoid cold, and attend to the regularity of the bowels.

Nervousness.—Cheerful society, early rising, exercise in the open air, particularly on horseback, and No. 15. Avoid excitement, study, and late meals.

Palpitation of the Heart.—The pills No. 2, with the mixture No. 15.

Piles.—The paste No. 38, at the same time a regulated diet. When the piles are external, or can be reached, one or two applications of the extract of lead, with an occasional dose of lenitive electuary, will generally succeed in curing them.

Quinsy.—A blister applied all round the throat; an emetic, No. 19, commonly succeeds in breaking the abcesses; afterwards the gargle No. 20. Avoid cold and damp.

Rheumatism.—Bathe affected parts with No. 27, and take internally No. 28, with No. 29 at bed-time, to ease pain, etc. Avoid damp and cold, wear flannel.

Rickets.—The powder No. 37, a dry, pure atmosphere, a nourishing diet.

Ringworm.—The lotion No. 36, with the occasional use of the powder No. 5. Fresh air and cleanliness.

Scarlet Fever.—Well ventilated room, sponging the body when hot with cold or tepid vinegar, or spirit and water; aperients, No. 4; diaphoretics, No. 8. If dropsy succeed the disappearance of the eruption, frequent purging with No. 5, succeeded by No. 7.

Scrofula.—Pure air, light but warm clothing, diet of fresh animal food; bowels to be regulated by No. 6 and No. 30, taken regularly for a considerable time.

Scurvy.—Fresh animal and vegetable food, and the free use of ripe fruits and lemon juice. Avoid cold and damp.

Small-Pox.—A well ventilated apartment, mild aperients; if fever be present, No. 7, succeded by diaphoretics No. 8, and tonics No. 16 in the stage of debility, or decline of the eruption.

St. Vitus's Dance.—The occasional use, in the commencement, of No. 5, followed by No. 7, afterwards No. 61.

Thrush.—One of the powders No. 6 every other night; in the intervals a dessert-spoon of the mixture No. 22 three times a day; white spots to be dressed with the honey of borax.

Tic-Doloreux.—Regulate the bowels with No. 3 and take in the intervals of pain No. 31. Avoid cold, damp, and mental anxiety.

Toothache.—Continue the use of No. 3 for a few alternate days. Apply liquor ammonia to reduce the pain, and when that is accomplished, fill the decayed spots with silver succedaneum without delay, or the pain will return. A drop of creosote, or a few drops of chloroform on cotton, applied to the tooth, or a few grains of camphor placed in the decayed opening, or camphor moistened with turpentine, will often afford instant relief.

Typhus Fever.—Sponging the body with cold or tepid water, a well-ventilated apartment, cold applications to the head or temples. Aperients No. 4, with refrigerants No. 9; tonics No. 16 in the stage of debility.

Water on the Brain.—Local bleeding by means of leeches, blisters, aperients No. 5, and mercurial medicines No. 18.

Whites.—The mixture No. 43, with the injection No. 44. Clothing light but warm, moderate exercise in the open air.

USEFUL PRESCRIPTIONS FOR THE BENEFIT OF THOSE WHO PREFER THE "OLD SCHOOL" PRACTICE.

PRESCRIPTIONS.*—The following prescriptions, originally derived from various prescribers' Pharmacopœias, embody the favorite remedies employed by the most eminent physicians:

1. Take of powdered aloes, 9 grs.; extract of colocynth, compound, 18 grs.; calomel, 9 grs.; tartrate of antimony, 2 grs.; mucilage, sufficient to make a mass, which is to be divided into 6 pills; 2 to be taken every 24 hours, till they act thoroughly on the bowels: in cases of inflammation, apoplexy, etc.

2. Powdered rhubarb, Socotrine aloes, and gum mastich, each 1 scr.; make into 12 pills: 1 before and 1 after dinner.

3. Compound extract of colocynth, extract of jalap, and castile soap, of each 1 scr.; make into 12 pills.

4. James's powder, 5 grs.; calomel, 3 grs: in fevers, for adults. For children, the following: powdered camphor. 1 scr.; calomel and powdered scammony, of each 9 grs.; James's powder, 6 grs.; mix and divide into 6 powders. Half of 1 powder twice a day for an infant a

* These to be used in the Cases enumerated under the head "Diseases."

year old; a whole powder for 2 years; and for 4 years, the same: times a day.

5. James's powder, 6 grs.; powdered jalap, 10 grs.; mix, and divide into 3 or 4 powders, according to the child's age: in one powder if for an adult.

6. Powdered rhubarb, 4 grs.; mercury and chalk, 3 grs.; ginger in powder, 1 gr.: an alterative aperient for children.

7. Dried sulphate of magnesia, 6 drs.; sulphate of soda, 3 drs.; infusion of senna, 7 ozs.; tincture of jalap, and compound tincture of cardamoms, each ½ oz. in acute diseases generally; take 2 table-spoons every 4 hours till it operates freely.

8. Nitrate of potass, 1½ drs.; spirits of nitric ether, ½ oz; camphor mixture, and the spirit of mindererus, each 4 ozs.: in fevers, etc.; two table-spoons 3 times a day, and for children a dessert-spoon every four hours.

9. Spirit of nitric ether, 3 drs.; dilute nitric acid, 2 drs.; syrup, 3 drs.; camphor mixture, 7 ozs.: in fevers, etc., with debility; dose as last.

10. Spirit of mindererus and camphor mixture of each 3½ ozs., wine of antimony, 1½ drs.; wine of ipecacuanha, 1½ drs.; syrup of tolu, ½ oz.: dose as last.

11. Decoction of broom, ½ pt.; cream-of-tartar, 1 oz.; tincture squills, 2 drs.: in dropsies; a third part 3 times a day.

12. Pills of soap and opium, 5 grs. for a dose, as directed.

13. Compound powder of ipecacuanha, 7 to 12 grs. for a dose, as directed.

14. Battley's solution of opium, from 10 to 40 drops; camphor mixture, 1½ ozs: in a draught at bedtime.

15. Ammoniated tincture of valerian, 6 drs.; camphor mixture, 7 ozs.: a fourth part three times a day; in spasmodic and hysterical disorders.

16. Disulphate of quina, ½ dr.; dilute sulphuric acid, 20 drops, compound infusion of roses, 8 ozs.: two table-spoons every 4 hours, in intermittent and other fevers, during the absence of the paroxysm.

17. Almond mixture, 7½ ozs.; wine of antimony and ipecacuanha, of each 1½ drs.: a table-spoon every 4 hours; in cough with fever, etc.

18. Calomel, 1 gr.; powdered white sugar, 2 grs.; to make a powder to be placed on the tongue every two or three hours. Should the calomel act on the bowels, powdered kino is to be substituted for the sugar.

19. Antimony and ipecacuanha wines of each 1 oz.; a tea-spoon every ten minutes till it vomits; but for an adult a large table-spoon to be taken.

20. Compound infusion of roses, 7 ozs.; tincture of myrrh, 1 oz.

21. Decoction of bark, 6 ozs.; aromatic confection, 1 dr.; tincture of opium, 5 drops.

22. Infusion of orange peel, 7 ozs.; tincture of hops, ½ oz.; and 1 dr. carbonate of soda; two table-spoons twice a day. Or, infusion of valerian, 7 ozs.; carbonate of ammonia, 2 ozs.; compound tincture of bark, 6 drs.; spirits of ether, 2 drs.: one table-spoon every twenty-four hours.

23. Blue pill, 4 grs.; opium, ½ gr.; to be taken 3 times a day.

24. **For a Clyster.**—A pint and a half of gruel or fat broth, 1 table-spoon of castor oil, 1 of common salt, and a lump of butter; mix to be injected slowly. A third of the quantity enough for an infant.

25. Chalk mixture, 7 ozs.; aromatic and opiate confections, of each 1 dr.; tincture of catechu, 6 drs.; two table-spoons every two hours.

26. Carbonate of soda, powdered rhubarb, and castile soap, each 1 dr.; make 36 pills; three twice a day.

27. **Lotion.**—Common salt, 1 oz.; distilled water, 7 ozs.; spirits of wine, 1 oz.; mix.

28. Dried sulphate of magnesia, 6 drs.; heavy carbonate of magnesia, 2 drs.; wine of colchicum, 2 drs.; water, 8 ozs.; take two table-spoons every four hours.

29. Compound powder of ipecacuanha, 10 grs.; powdered guaicum, 4 grs.; in a powder at bedtime.

30. Brandish's solution of potash; 30 drops twice a day in a wine glass of beer.

31. Disulphate of quina, ½ dr.; dilute sulphuric acid, 10 drops; compound infusion of roses, 8 ozs.; two table-spoons every four hours, and as a tonic in the stage of weakness succeeding fever.

32. Flowers of sulphur, 2 ozs.; hog's lard, 4 ozs.; white hellebore powder, ½ oz.; oil of lavender, 60 drops.

33. Hydriodate of potass, 2 drs.; distilled water, 8 ozs.

34. Flowers of sulphur, ½ dr; carbonate of soda, 1 scr.; tartarized antimony, ⅙ gr.; one powder, night and morning, in eruptions of the skin or face.

35. Milk of bitter almonds, 7 ozs.; bichloride of mercury, 4 grs.; spirits of rosemary, 1 oz.; bathe the eruption with this lotion three times a day.

36. Sulphate of zinc, 2 scrs.; sugar of lead, 15 grs.; distilled water, 6 ozs.; the parts to be washed with the lotion two or three times a day.

37. Carbonate of iron, 6 grs.; powdered rhubarb, 4 grs.; one powder night and morning.

38. Elecampane powder, 2 ozs.; sweet fennel-seed powder, 3 ozs.; black pepper powder, 1 oz.; purified honey, and brown sugar, of each 2 ozs.: the size of a nutmeg two or three times a day.

39. Sulphate of zinc, 12 grs.; wine of opium, 1 dr.; rose water, 6 ozs.

40. Common salt, 1 oz.; water, 4 ozs.; spirits of wine and vinegar, each 2 ozs.; the parts to be bathed or rubbed with this lotion frequently.

41. Spirits of wine and distilled vinegar, each 1 oz.; rose water, 6 ozs.; the parts to be kept constantly damp with the lotion.

42. Linseed oil and lime water, equal quantities; anoint the injured parts freely with a feather.

43. Sulphate of magnesia, 6 drs.; sulphate of iron, 10 grs.; diluted sulphuric acid, 40 drops; tincture of cardamoms (compound), ½ oz.; water, 7 ozs.; a fourth part night and morning.

44. Decoction of oak bark, 1 pt.; dried alum, ½ oz.; for an injection, a syringeful to be used night and morning.

45. Compound gamboge pill, and a pill of assafœtida and aloes, of each ½ dr.; make 12 pills; two twice or three times a week.

46. Griffiths's mixture—one table-spoon three times a day.

47. Ergot of rye, 5 grs.; in a powder, to be taken every 4 hours.

48. Powdered opium, ⅓ gr.; camphor, 2 grs.; in a pill; to be taken every three or four hours while in pain.

49. Balsam of copaiba, ½ oz.; powdered cubebs, ½ oz.; solution of potass, 3 drs.; powdered acacia, 2 drs.; laudanum, 20 drops; cinnamon water, 7 ozs.; one table-spoon three times a day.

50. Tartarized antimony, 2 grs.; sulphate of magnesia, 6 drs.; nitrate of potass, 1 dr.; compound tincture of cardamoms, ½ oz.; water, 3 ozs.

51. Lime water, 2 ozs.; calomel, 1 scr.; make a lotion, to be applied by means of soft lint.

52. Blue pill, 5 grs.; powdered opium, ½ gr.; two pills at night and one in the morning.

53. Biniodide of mercury, 2 grs.; hydriodate of potass, 1 dr.; extract of sarsaparilla, 1 oz.; water, 8 ozs.; one table-spoon three times a day.

54. Sulphate of zinc, 24 grs., in a wine glass of water; to be given for an emetic, and repeated if necessary.

55. Dill water, 1½ ozs.; volatile tincture of valerian, 20 drops; tincture of castor, 1 dr.; spirits of sulphuric ether, 20 drops; make a draught, to be taken three times a day.

56. Syrup of poppies, oxymel of squills, of each 1 oz.; solution of potass, 2 drs.; a tea-spoon frequently.

57. Syrup of balsam of tolu, 2 ozs.; the muriate of morphia, 2 grs.; muriatic acid, 20 drops; a tea-spoon twice a day.

58. Salts of tartar, 2 scrs.; powdered cochineal, 20 grs.; honey, ½ lb.; water, ½ pt.; boil, and give a table-spoon three times a day.

59. Calomel, 10 grs.; castile soap, extract of jalap, extract of colocynth, of each 1 scr.; oil of juniper, 5 drops; make into fifteen pills; one three times a day.

60. Infusion of orange peel, 8 ozs.; carbonate of soda, 1 dr.; and compound tincture of cardamoms, ½ oz.; take a table-spoon three times a day, succeeding the pills.

61. Carbonate of iron, 3 ozs.; syrup of ginger, sufficient to make an electuary; a tea-spoon three times a day.

62. Take of castile soap, compound extract of colocynth, compound rhubarb pill, and the extract of jalap, of each 1 scr.; oil of caraway, 10 drops; make into 20 pills, and take one after dinner every day while necessary.

63. Spirit of rosemary, five parts; spirit of wine, or spirit of turpentine, 1 part.

64. Take of thick mucilage, 1 oz.; castor oil, 12 drs.; make into an emulsion; add mint water, 4 ozs.; spirit of nitre, 3 drs.; laudanum, 1 dr.; mixture of squills, 1 dr.; and syrup, 7 drs.; mix; two table-spoons every six hours.

MEDICINES (Aperient.)—In the spring time of the year the judicious use of aperient medicines is much to be commended.

Spring Aperients.—For children an excellent medicine is—1. Brimstone and molasses, prepared by mixing an ounce and a half of sulphur, and half an ounce of cream-of-tartar, with eight ounces of molasses; and, according to the age of the child, giving from a small tea-spoon to a dessert-spoon, early in the morning, two or three times a week. As this sometimes produces sickness, the following may be used:—2. Take of powdered Rochelle salts one drachm and a half, powdered jalap and powdered rhubarb, each fifteen grains, ginger, two grains; mix. Dose for a child above five years, one *small* tea-spoon; above ten years, a *large* tea spoon; above fifteen, half the whole, or two tea-spoons; and for a person above twenty, three tea-spoons, or the whole, as may be required by the habit of the person. This medicine may be dissolved in warm water, mint, or common tea. The powder can be kept for use in a wide-mouthed bottle, and be in readiness for any emergency. The druggist may be directed to treble or quadruple the quantities, as convenient.

Aperient Pills.—To some adults all liquid medicines produce such nausea that pills are the only form in which aperients can be exhibited; the following is a useful formula:—3. Take of compound rhubarb pill a drachm and one scruple, of powdered ipecacuanha ten grains, and of extract of hyoscyamus one scruple; mix, and beat into a mass, and divide into twenty-four pills: take one or two, or if of a very costive habit, *three* at bedtime.—4. For persons requiring a more powerful aperient, the same formula, with twenty grains of compound extract of colocynth, will form a good purgative pill. The mass receiving this addition must be divided into thirty, instead of twenty-four pills.

Black Draught.—5. The common aperient medicine known as black draught is made in the following manner: Take of senna leaves six drachms, bruised ginger, half a drachm, sliced licorice root four drachms, Epsom salts, two and a half ounces, boiling water, half an imperial pint. Keep this standing on the hob or near the fire for three hours, then strain, and after allowing it to grow cool, add of sal-volatile one drachm and a half, of tincture of senna, and of tincture of cardamoms, each half an ounce. (This mixture will keep a long time in a cool place.) Dose, a wine glass for an adult; and two table-spoons for young persons about fifteen years of age. It is not a suitable medicine for children.

Tonic Aperient.—6. Take of Epsom salts one ounce, diluted sulphuric acid, one drachm, infusion of quassia chips, half an imperial pint, compound tincture of rhubarb, two drachms. Half a wine glass for a dose twice a day.

Infants' Aperient.—7. Take of rhubarb, five grains, magnesia, three grains, white sugar, a scruple, grey powder, five grains; mix. Dose, for an infant from twelve to eighteen months of age, from one-third to one-half of the whole.—8. A useful laxative for children is composed of calomel, five grains, and sugar a scruple, made into five powders; half of one of these for a child from birth to one year, and a whole one from that age to three years.

FLOUR OF BRIMSTONE is a mild aperient in doses of about a quarter of an ounce; it is best taken in milk. Flour of brimstone, which is also called sublimed sulphur, is generally put up in ounce packages.

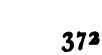
Medicines—Preparations of.—The following directions are of the utmost value in connection with the Domestic Pharmacopœa, Diseases, Prescriptions, and Poisons. *They will be found most important to emigrants, attendants upon the sick, and persons who reside out of the reach of medical aid, sailors, etc., etc. They contain instructions not only for the compounding of medicines, but most useful hints and cautions upon the application of leeches, blisters, poultices, etc.*

Articles Required for Mixing Medicines.—Three glass measures, one to measure ounces, another to measure drachms, and a measure for minims, drops, or small doses. *A pestle and mortar*, both of glass and Wedgewood-ware, a glass funnel, and glass stirring rods. *A spatula*, or flexible knife, for spreading ointments, making pills, etc. *A set of scales and weights. A small slab of marble*, slate, or porcelain, for making pills upon, mixing ointments, etc.

Medicine Weights and Measures.—*Weights.*—When you open your box containing the scales and weights, you will observe that there are several small pieces of brass, of different sizes and thicknesses, and stamped with a variety of characters. These are the weights, which we will now explain.

MEDICINES ARE MADE up by Troy weight, although drugs are bought by avoirdupois weight, and of course you know that there are only twelve ounces to the pound troy, which is marked lb.; then each ounce, which contains eight drachms, is marked ℥i.; each drachm, containing three scruples, is marked ʒi.; and each scruple of twenty grains is marked ℈i. The grain weights are marked by little circles signifying a grain. Each of the grain weights, in addition to the circles denoting their several weights, bears also the stamp of a crown. Care must be taken not to mistake this for one of the numerals. Besides these weights you will find others marked ℈ss, which means half a scruple; ʒss, meaning half a drachm; and ℥ss, meaning half an ounce. When there are ounces, drachms, or scruples, the number of them is shown by Roman figures, thus:—i. ii. iii. iv. v., etc., and prescriptions are written in this style.

5 Grains.



Measures.—Liquid medicines are measured by the following table:

60 minims		1 fluid drachm.
8 fluid drachms	are contained in	1 fluid ounce.
16 fluid ounces		1 pint.
8 pints		1 gallon.

And the signs which distinguish each are as follows: C. means a gallon; *o.* a pint; ƒ℥, a fluid ounce; ƒʒ, a fluid drachm; and ♏, a minim or drop. Formerly drops used to be ordered, but as the size of a drop must necessarily vary, minims are always directed to be employed now for any particular medicine, although for such medicines as oil of cloves, essence of ginger, etc., drops are frequently ordered.

IN ORDER THAT WE MAY MEASURE MEDICINES ACCURATELY there are graduated glass vessels for measuring ounces, drachms, and minims.

WHEN PROPER MEASURES ARE NOT AT HAND, it is necessary to adopt some other method of determining the quantities required, and therefore we have drawn up the following table for that purpose:

A tumbler.....	usually contains about	10 ounces.
A tea-cup.....		6 "
A wine glass.....		2 "
A table-spoon.....		4 drachms.
A dessert-spoon...		2 "
A tea-spoon.....		1 "

These quantities refer to ordinary sized spoons and vessels. Some cups hold half as much more, and some table-spoons contain 6 drachms. Many persons keep a medicine-glass, which is graduated so as to show the number of spoons it contains.

Process of Making Medicines.—TO POWDER SUBSTANCES.—Place the substance in the mortar, and strike it *gently* with direct perpendicular blows of the pestle, until it separates into several pieces, then remove all but a small portion, which bruise gently at first, and rub the pestle round and round the mortar, observing that the circles described by the pestle should gradually decrease in diameter, and then increase again, because by this means every part of the powder is subjected to the process of pulverization. In powdering substances, making emulsions, and whenever using a mortar, the pestle should always travel *from the right to the left.*

SOME SUBSTANCES require to be prepared in a particular manner before they can be powdered, or to be assisted by adding some other body. For example, camphor powders more easily when a few drops of spirits of wine are added to it; mace, nutmegs, and such oily aro-

matic substances are better for the addition of a little white sugar; resins and gum-resins should be powdered in a cold place, and if they are intended to be dissolved, a little fine, well-washed white sand mix with them assists the process of powdering. Tough roots, like gentian and calumba, should be cut into thin slices; and fibrous roots, like ginger, cut slanting, otherwise the powder will be full of small fibres. vegetable matters require to be dried before they are powdered, such as peppermint, loosestrife, senna, etc.

BE CAREFUL not to pound too hard in a glass, porcelain, or Wedgewood-ware mortar; they are intended only for substances that pulverize easily, and for the purpose of mixing or incorporating medicines. Never use acids in a marble mortar, and be sure that you do not powder galls or any other astringent substances in any but a brass mortar.

SIFTING is frequently required for powdered substances, and this is usually done by employing a fine sieve, or tying the powder up in a piece of muslin, and striking it against the left hand over a piece of paper.

FILTERING is frequently required for the purpose of obtaining clear fluids, such as infusions, eye-washes, and other medicines; and it is, therefore, highly important to know how to perform this simple operation. We must first of all make the filter paper; this is done by taking a square sheet of white blotting paper, and doubling it over, so as to form an angular cup. We next procure a piece of wire, twist it into a form to place the funnel in, to prevent it passing to far into the neck of the bottle. Open out the filter paper very carefully, and having placed it in the funnel, moisten it with a little water. Then place the wire in the space between the funnel and the bottle, and pour the liquid gently down the side of the paper, otherwise the fluid is apt to burst the paper.

MACERATION is another process that is frequently required to be performed in making up medicines, and consists simply in immersing the medicines in *cold water* or spirits for a certain time.

DIGESTION resembles maceration, except that the process is assisted by a gentle heat. The ingredients are placed in a flask, such as salad oil is sold in, which should be fitted with a plug of tow or wood, and have a piece of wire twisted round the neck. The flask is held by means of the wire over the flame of a spirit lamp, or else placed in some sand warmed in an old iron saucepan over the fire, care being taken not to place more of the flask below the sand than the portion occupied by the ingredients.

INFUSION is one of the most frequent operations required in making up medicines, its object being to extract the aromatic and volatile principles of substances, that would be lost by decoction or digestion; and to extract the soluble from the insoluble parts of bodies. Infusions may be made with cold water, in which case they are weaker, but more pleasant. The general method employed consists in slicing, bruising, or rasping the ingredients first, then placing them in a common jug (which should be as globular as possible), and pouring boiling water over them; cover the jug with a cloth folded six or eight times, but if there be a lid to the jug so much the better; when the infusion has stood the time directed, hold a piece of *very coarse* linen over the spout, and pour the liquid through it into another jug.

DECOCTION, or boiling, is employed to extract the mucilaginous or gummy parts of substances, their bitter, astringent, or other qualities, and is nothing more than boiling the ingredients in a saucepan

with the lid slightly raised. Be sure never to use an iron saucepan for astringent decoctions, such as oak bark, galls, etc., as they will turn the saucepan black, and spoil the decoction. The enamelled saucepans are very useful for decoctions, but an excellent plan is to put the ingredients into a jar and boil the jar, thus preparing it by a water bath, as it is technically termed; or by using a common pipkin, which answers still better. No decoction should be allowed to boil for more than ten minutes.

EXTRACTS are made by evaporating the liquors obtained by infusion or decoction, but these can be bought much cheaper and better of chemists and druggists, and so can tinctures, confections, cerates, and plasters, and syrups; but as every one is not always in the neighborhood of druggists, we shall give recipes for those most generally useful, and the method of making them.

PRECAUTIONS TO BE OBSERVED IN GIVING MEDICINES—Sex.—Medicines for females should not be so strong as those for males, ther'o e, it is advisable to reduce the doses about one-third.

Temperament.—Persons of a phlegmatic temperament bear stimulants and purgatives better than those of a sanguine temperament, therefore the latter require smaller doses.

Habits.—Purgatives never act so well upon persons accustomed to take them as upon those who are not, therefore it is better to change the form of purgative from pill to potion, powder to draught, or aromatic to saline. Purgatives should never be given when there is an irritable state of the bowels.

STIMULANTS AND NARCOTICS never act so quickly upon persons accustomed to use spirits freely as upon those who live abstemiously.

Climate.—The actions of medicines is modified by climate and seasons. In summer, certain medicines act more powerfully than in winter, and the same person cannot bear the dose in July that he could in December.

General Health.—Persons whose general health is good, bear stronger doses than the debilitated and those who have suffered for a long time.

Idiosyncrasy.—Walker's Dictionary will inform you that "idiosyncrasy" means a peculiar temperament or disposition not common to people generally. For example, some persons cannot take calomel in the smallest dose without being salivated, or rhubarb without having convulsions; others cannot take squills, opium, senna, etc., and this peculiarity is called the patient's idiosyncrasy, therefore, it is wrong to *insist* upon their taking these medicines.

Forms Best Suited for Administration.—Fluids act quicker than solids, and powders sooner than pills.

Best Method of Preventing the Nauseous Taste of Medicines.—Castor oil may be taken in milk, coffee, or spirits, such as brandy; but the best method of covering the nauseous flavor is to put a table-spoon of strained orange juice in a wine glass, pour the castor oil into the center of the juice, and then squeeze a few drops of the lemon juice upon the top of the oil. Cod liver oil may be taken, like castor oil, in orange juice. Peppermint water almost neutralizes the nauseous taste of Epsom salts; a strong solution of the extract of licorice, that of aloes; milk that of cinchona bark; and cloves of senna.

AN EXCELLENT way to prevent the taste of medicines is to have the medicine in a glass, as usual, and a tumbler of water by the side of it; take the medicine, and retain it in the mouth, which should be kept closed, and if you then commence drinking the water, the taste of

the medicine is washed away. Even the bitterness of quinine and aloes may be prevented by this means. If the nostrils are firmly compressed by the thumb and finger of the left hand, while taking a nauseous draught, and so retained till the mouth has been washed out with water, the disagreeable taste of the medicine will be quite unperceived.

Giving Medicines to Persons.—Medicines should be given in such a manner that the effect of the first dose shall not have ceased when the next dose is given, therefore the intervals between the doses should be regulated accordingly.

Doses of Medicine for Different Ages.—It must be plain to every one that children do not require such powerful medicine as adults or old people, and therefore it is desirable to have some fixed method of determining or regulating the administration of doses of medicine. Now we will suppose that the dose for a full-grown person is one drachm, then the following proportions will be suitable for the various ages given; keeping in view other circumstances, such as sex, temperament, habits, climate, state of *general health*, and idiosyncrasy.

AGE.	Proportion.	Proportionate Dose.
7 Weeks	one-fifteenth	or grains 4
7 Months	one-twelfth	or grains 5
Under 2 years	one-eighth	or grains 7½
Under 3 years	one-sixth	or grains 10
Under 4 years	one-fourth	or grains 15
Under 7 years	one-third	or scruple 1
Under 14 years	one-half	or drachm ½
Under 20 years	two-fifths	or scruple 2
Above 21 years	the full dose	or drachm 1
Above 65 years	the inverse	gradation

USEFUL PRESCRIPTIONS FOR THE BENEFIT OF THOSE WHO PREFER THE "OLD SCHOOL" PRACTICE.

ARRANGED UNDER THE HEADS OF APERIENTS, PURGATIVES, EXPECTORANTS DIAPHORETICS, ANTACIDS, AND STOMACHICS, ASTRINGENT, AND TONICS.

There are several prescriptions given in each section, embracing mixtures, pills, and powders, which will be found suited to almost every distinctive phase in the affection for which they are given: thus, under Expectorants, "Cough," medicines will be found to produce sedative, stimulating, or relaxing effects.

APERIENT PILLS.

(Mild, for Females.)

No. 1. Take of—
Compound extract of colocynth ..... ½ dr.
Blue pill..... 18 grs.
Extract of henbane.... 12 grs.
Oil of caraways..... 6 drops.

Mix, and divide into twelve pills: one to be taken at bedtime, and another in the morning, if necessary.

No. 2. Take of—
Pil. Rufi ..... 2 scrs.
Extract aloes..... 10 grs.
Extract of hemlock... 15 grs.
Oil of juniper..... 6 drops.

Mix, and divide into twelve pills: one or two for a dose, when necessary.

No. 3. Take of—
Compound assafœtida pill ..... 1 scr.
Pil. Rufi..... 20 grs.
Extract of henbane.... 1 scr.

Mix, and divide into twelve pills: one or two to be taken as a dose, as required.

No. 4. Take of—
Compound rhubarb pill 30 grs.
Compound colocynth pill..... 30 grs.
Oil of peppermint..... 6 drops.

Mix and divide into twelve pills: one to be taken for a dose night and morning, as needed.

No. 5. Take of—
Extract of colocynth compound ..... 1 scr.
Blue pill..... 1 scr.
Extract of henbane... 1 scr.

Mix, and divide into twelve pills: one or two to be taken for a dose.

PURGATIVE PILLS.

(Strong, for Men.)

No. 1. Take of
Powdered aloes..... 18 grs.
Powdered colocynth... 15 grs.
Calomel..... 18 grs.
Scammony powder.... 15 grs.
Oil of cloves..... 5 drops.

Mix, and make into twelve pills: two or three to be taken at once, according to the action required.

No. 2. Take of—
Compound extract of colocynth..... 2 scrs.
Blue pill..... 1 scr.
Oil of caraways..... 6 drops.
Croton oil ..... 2 drops.

Mix, and divide into twelve pills: one, two, or three to be taken, according to circumstances.

No. 3. Take of—
Powdered aloes..... 24 grs.
Powdered gamboge.... 12 grs.
Powdered colocynth... 12 grs.
Powdered scammony. 10 grs.
Calomel..... 15 grs.
Oil of peppermint..... 6 drops.

Mix, and divide into twelve pills: two to be taken at bedtime, and one in the morning, if necessary.

No. 4. Take of—
Compound colocynth pill..... 2 scrs.
Blue pill..... 1 scr.
Castile soap..... 12 grs.

Mix, and divide into twelve pills: one, two, or three for a dose, as required.

No. 5. Take of—
Powdered scammony. ½ dr.
Calomel..... 1 scr.
Extract of colocynth.. 1 scr.
Oil of cinnamon..... 4 drops.
Castile soap..... 15 grs.

Mix, and divide into fifteen pills: two to be taken for a dose. These will be

found a safe and effectual pill in all cases where a strong laxative is required.

EXPECTORANTS.

Cough Pills.

No. 1. Take of—

Powdered squills.....	12 grs.
Powdered ipecacuanha	18 grs.
Powdered ginger.....	12 grs.
Extract of hemlock...	½ dr.

Mix, and divide into twelve pills: one to be taken three times a day.

No. 2. Take of—

Powd'd ammoniacum.	24 grs.
Powdered squills... ..	10 grs.
Powdered ipecacuanha	10 grs.
Antimonial powder...	18 grs.
Extract of henbane....	1 scr.

Mix, and divide into fifteen pills: one to be taken every six hours.

No. 3. Take of—

Powdered camphor....	20 grs.
Powdered opium.....	6 grs.
Powdered squills... ..	12 grs.
Antimonial powder...	18 grs.
Extract of hemlock....	15 grs.
Oil of anise-seed.....	6 drops.

Mix, and divide into twelve pills: one to be taken night and morning, or three times a day.

No. 4. Take of—

Balsam of tolu.....	1 dr.

Divide into fifteen pills: one to be taken every four or six hours.

No. 5. Take of—

Powdered gualacum...	1 scr.
Powd'd ammoniacum.	1 scr.
Powdered camphor....	10 grs.
Powdered opium.....	4 grs.
Benzoic acid	10 grs.
Carbonate of ammonia	12 grs.

Mix thoroughly, and make into a mass with—

Extract of henbane.... 1 scr.

and divide into twenty pills: one to be taken every four hours when the cough is hard and the chest oppressed.

Cough Mixtures.

For asthmatic patients, and persons advanced in life.

No. 1. Take of—

Carbonate of ammonia	½ dr.
Dover's powder.....	2 scrs.
Camphor water, to make	6 ozs.
Syrup of squills.... ...	½ oz.
Spirits of nitre.....	3 drs.

Mix: a table-spoon to be taken every three or four hours, and when there is much wakefulness two table-spoons at bedtime.

No. 2. Take of—

Gum ammoniacum....	1 dr.
Peppermint water, enough for.....	6 ozs.
Corbonate of ammonia	1 scr.

Make an emulsion, and add—

Friar's balsam.....	3 drs.
Laudanum.....	1 dr.

Mix a table-spoon whenever the cough is troublesome.

No. 3. Take of—

Vinegar of squills.	1 oz.
Tincture of tolu.....	2 drs.
Antimonial wine.....	½ oz.
Mint water, to make..	6 oz.
Syrup of red poppy ...	½ oz.
Spts. of sulphuric ether	1 dr.

Mix: a table-spoon every three or four hours.

The following mixtures will suit any condition of cough, and may be taken in any case requiring medicines of this nature.

No. 4. Take of—

Almond confection....	2 drs.
Warm water.....	4 ozs.

Make an emulsion, and add—

Spirits of mindererus.	1 oz.
Syrup of tolu.....	½ oz.
Wine of ipecacuanha..	2 drs.
Spirits of nitre.....	2 drs.

Mix: two table-spoons three times a day, or one spoon every three hours.

No. 5. Take of—

Mucilage.....	1½ oz.
Syrup of squills.....	½ oz.
Syrup of tolu.....	½ oz.
Paregoric.....	1 oz.
Spirits of nitre.....	2 drs.
Mint water.....	enough to

make a 6-ounce mixture: one table-spoon to be taken when the cough is troublesome, and two at bedtime.

No. 6. Take of—

Compound tragacanth powder.....	2 drs.
Warm water.....	3 ozs.
Spirits of mindererus.	6 drs.
Syrup of tolu.....	½ oz.
Syrup of squills.....	2 drs.
Paregoric.....	½ oz.
Spirits of nitre.....	3 drs.
Mint water.....	2½ ozs.

Mix: two table-spoons for a dose, to be taken as often as necessary.

No 7. Take of—

Horehound leaves	1 oz.
Licorice root.....	½ oz.
Boiling water	10 ozs.

Infuse in a sauce-pan by the fire for six hours, then boil for ten minutes, strain, and sweeten with moist sugar, finally add to 10 ounces of the liquid—

Syrup of squills.....	2 ozs.

and—

Laudanum.....	2 drs.

Mix, and make a 12 ounce mixture, of which two table-spoons are to be taken three times a day.

No. 8. Take of—

Ammoniacum	1 dr.
Carbonate of potass....	2 drs.
Camphor water.....	4½ ozs.

Mix, and add—

Syrup of squills.....	6 drs.
Spirits of nitre	½ oz.
Antimonial wine.....	3 drs.

Mix: a table-spoon whenever the cough is troublesome.

No. 9. Take of—

Powdered nitre.....	2 scrs.
Ipecacuanha powder..	10 grs.
Mint water...	3 ozs.

Mix, and add—

Mucilage..... ...	1 oz.
Syrup of tolu..	½ oz.
Spirits of mindererus.	1½ ozs.

Mix: two table-spoons to be taken 3 times a day.

No. 10. Take of—

Marsh mallow root, bruised or cut small,	1 oz.
Horehound....	1 oz.
Licorice root.....	1 oz.
Carbonate of potass...	2 drs.
Boiling water....	1 pint.

Boil slowly for two hours, strain, and sweeten with honey or moist sugar, and take half a wine glass three or four times a day.

Diaphoretic or Sweating Medicines.

No. 1. Take of—

Dover's powder.....	10 grs.

To be taken at bedtime in a little gruel.

No. 2. Take of—

Dover's powder.....	30 grs.
Antimonial powder...	12 grs.
Calomel.....	9 grs.

Mix, and divide into six powders: one to be taken every four or six hours in a little gruel. These are serviceable powders to keep up a steady action on the skin.

No. 3. Take of—

Powdered nitre.....	1 scr.
Camphor water.....	3½ ozs.
Spirits of mindererus.	12 drs.
Antimonial wine.....	2 drs.
Spirits of sweet nitre..	2 drs.
Syrup of saffron.....	3 drs

Mix: the fourth part to be taken at bedtime, night and morning, or three times a day.

No. 4. Take of—

Carbonate of ammonia	30 grs.
Guaicum powder.....	1 scr.
Camphor water.....	5½ ozs.
Laudanum	1 dr.
Syrup of saffron.....	3 drs.

Mix: two table-spoons three times a day, or the fourth part night and morning.

Antacids, for Acidity in the Stomach.

No. 1. Take of—

Caustic liquor of potass	1½ drs.
Laudanum	30 drops.
Lime water.....	6 ozs.

Mix: one table-spoon in a little water to be taken every four hours.

No. 2. Take of—

Prepared chalk.....	3 drs.
Calcined magnesia....	2 drs.
Lime water.....	6 ozs.
Caustic liquor of potass	1 dr.

Mix: one table-spoon in a little water every three hours.

No. 3. Take of—

Bicarbonate of potass.	1 dr.
Bicarbonate of soda...	½ dr.
Carbonate of ammonia	1 scr.
Infusion of calumba...	6 ozs.

Mix: two table-spoons twice a day, or one spoon every three hours. This is a good antacid and stomachic.

No. 4. Take of—

Gregory's powder.....	3 drs.
Carbonate of soda	1 dr.

Mix, and divide into six powders: one to be taken in peppermint water two or three times a day.

No. 5. Take of—

Dried carbonate of soda	2 scrs.
Rhubarb powder.....	12 grs.
Ginger powder	12 grs.
Soap, yellow.	enough to

make a mass, which divide into sixteen pills: one to be taken before each meal, or two night and morning.

ASTRINGENTS, OR MEDICINES FOR DIARRHEA OR RELAXATION.

No. 1. Take of—

Prepared chalk.....	8 drs.
Aromatic confection..	2 drs.
Mint water—to make.	6 ozs.
Sal-volatile, spirit....	1½ drs.

Mix: two table-spoons every three hours till the bowels become more easy.

No. 2. Take of—

Infusion of roses.....	5½ ozs.
Powdered alum.....	1 dr.
Syrup of red poppy....	½ oz.

Mix: one or two table-spoons as often as required.

No. 3. Take of—

Decoction of oak bark,	5½ ozs.
Electuary of catechu "Terra Japonica"....	3 drs.
Tincture of bark.....	4 drs.

Mix: two table-spoons every four hours.

No. 4. Take of—

Prepared chalk	2 drs.
Powdered Rhubarb....	½ dr.
Aromatic confection..	1½ drs.
Tincture of rhubarb...	½ oz.
Cinnamon water... ...	5½ ozs.

Mix: two table-spoons 3 times a day.

No. 5. Take of—

Aromatic confection ..	1 dr.
Electuary of catechu..	2 drs.
Peppermint water— to	6 ozs.
Tincture of catechu...	½ oz.
Tincture of assafœtida,	30 drops.
Laudanum..... ..	40 drops.

Mix: take two table-spoons every 3 or 4 hours. This is a very useful mixture when the relaxation is attended with pain, flatulence, and colic griping.

No, 6. Take of—

Tincture of kino..... 1 oz.

The fourth part to be taken in a little sugar and water in a wine-glass every two hours till the diarrhea is subdued. This is one of the most generally useful astringents, and one of the simplest, both for adult and child, that can be used, from ten drops to a tea-spoon, in a little syrup, may be given to a child from one to six years of age, repeating the dose if required. See article "Kino."

TONICS.

No. 1. Take of—

Infusion of roses.....	6 ozs.
Quinine	1 scr.
Diluted sulphuric acid,	40 drops.

Mix: one table-spoon to be taken 3 or 4 times a day.

No. 2. Take of either—

Infusion of gentian and orange peel	
Infusion of calumba and lemon peel	
Infusion of quassia and cascarilla	
Infusion of oak bark and cloves.....	5½ ozs.
Carbonate of ammonia	1 scr.
Bicarbonate of potass.	1 dr.
Compound tincture of bark.....	½ oz.

Mix: two table-spoons 3 times a day.

No. 3. Take of—

Hops.....	2 drs.
Orange peel.....	2 drs.
Boiling water.....	7 ozs.

Infuse, strain, and add—

Tincture of bark.....	6 drs.
Spirits of sal-volatile...	2 drs.

Mix: one table-spoon to be taken every 3 hours.

No. 4. Take of—

Infusion of quassia...	5½ ozs.
Tincture of ginger.....	2 drs.
Tincture of the muriate of iron	1½ drs.

Mix: one table-spoon in a little water 3 times a day.

No. 5. Take of—

Calumba root.....	2 drs.
Cardamom seeds, bruised	1 dr.
Ginger root	1 dr.
Boiling water.....	8 ozs.

Infuse and strain.

Diluted nitro-muriatic acid.....	40 drops.

Mix: one table-spoon to be mixed with three of water, and taken every 6 hours,

No. 6. Take of—

Quinine.....	2 scrs.
Ginger powder.....	1 scr.

Extract of gentian, soft, enough to make into a mass. Divide into 20 pills; one to be taken 1, 2, or 3 times a day, according to the effect required.

EMBROCATIONS.

No. 1. Take of—

Compound camphor liniment.....	1½ ozs.
Spirits of sal-volatile..	½ oz.

Mix: to be used as required.

No. 2. Take of—

Compound camphor liniment.....	1 oz.
Opodeldoc..... .	1 oz.

Mix.

No. 3. Take of—
Opodeldoc..... ½ oz.
Laudanum..... ½ oz.
Compound camphor liniment..... ½ oz.

Mix. Either of the above forms may be used as an embrocation to rub the throat or joints in cases of sprains, or when stimulating applications are required, the last being especially serviceable when there is much pain in the part.

For hard and swollen breasts, the consequence of accumulated milk, the following prescription will be found of benefit in dispelling the tumid state of the glands:

No. 4. Take of—
Compound camphor liniment..... 1 oz.
Spirits of sulphuric ether..... ½ oz.

Mix: to be rubbed lightly over the breast, and then allowed to evaporate. This should not be used more than three times a day, and then merely spread over the part. Care must be taken not to use this embrocation near the fire, or the light of a candle or of gas.

No. 5. Take of—
Tincture of iodine..... 1 dr.
Compound camphor liniment..... 9 drs
Spirits of sal-volatile.. 2 drs.

Mix. A good discutient embrocation in cases of scrofulous enlargement of the joints or glands.

Liniments.

The following applications will be found useful in all cases of sprains, chronic swellings, weakness of the joints or muscles, and in rheumatism and lumbago:

Camphorated Oil.

No. 6. Take of—
Camphor, cut into small pieces..... 2 drs.
Olive oil..... 2 ozs.

The oil is to be poured on the camphor in a bottle, and then placed, without a cork, in a moderately warm oven for an hour or two, till, on shaking, the camphor is quite dissolved; or the bottle may be stood in a jug of hot water for the same object, that of dissolving the camphor. This preparation may be used alone, or in combination with other ingredients.

In cases of dropsy, camphorated oil makes the best external application that can be used; and if rubbed frequently over the dropsical part, and for several minutes at a time, will, by its action on the kidneys, rapidly reduce the swelling.

No. 7. Take of—
Camphorated oil..... 2 ozs.
Turpentine..... ½ oz.
Hartshorn..... ½ oz.

Mix. A good liniment for rheumatism, sore throat, etc.

No. 8. Take of—
Camphorated oil..... 2 ozs.
Opodeldoc..... 1 oz.
Laudanum..... 1 oz.
Oil of amber..... 2 drs.
Hartshorn..... 6 drs.

Mix. A useful application for cases of lumbago, sprains, etc.

No. 9. Take of—
Mustard..... ¼ oz.

Mix smoothly in a mortar with—

Spirits of horseradish 2 ozs.
Spirits of camphor.... ½ oz.
Olive oil..... 2 ozs.
Turpentine..... 1 oz.
Hartshorn..... 1 oz.

Shake well together till the whole is incorporated. A good stimulating liniment in cases of long-standing rheumatism or paralysis. This preparation must always be shaken before being used.

No. 10. Take of—
Linseed oil..... 2 ozs.
Lime water..... 2 ozs.

Mix by shaking together. This liniment, in color like the yolk of an egg, was at one time largely used in Scotland as a dressing for burns, and is still known by the name of Carron Oil.

No. 11. Take of—
Olive oil..... 2 ozs.
Hartshorn..... 1 oz.

Shake together. This preparation commonly known as hartshorn and oil, is chiefly used as an application for sore throat; when made, however with camphorated oil instead of olive oil, the efficacy of the liniment is very greatly increased.

No. 12. Take of—
Opodeldoc..... 1 oz.
Laudanum..... 1 oz.

Mix. This will be found a very serviceable liniment in neuralgia of the head and face, especially if rubbed well into the part, and a piece of flannel soaked with the liniment tied on over the affected nerve.

GARGLES.

No. 1. *Astringent Gargles.* Take of—
Red sage..... 1 oz.
Boiling water..... 10 ozs.
Infuse for 3 hours, strain, and add—
Burnt alum..... 1 dr.
Mix, and make a gargle.

No. 2. Take of—

Sage tea, made as above	8 ozs.
Vinegar	2 ozs.

Mix for a gargle.

No. 3. Take of—

Bruised oak bark	1 oz.
Boiling water	11 ozs.

Infuse for 4 hours, strain, and add—

Tincture of catechu	1 oz.

Mix for a gargle.

No. 4. Take of—

Pomegranate and oak bark, of each	6 drs.
Boiling water	12 ozs.

Infuse for 4 hours, strain, and add—

Powdered alum	1½ drs.

Mix, and make a gargle.

No. 5. Take of—

Tincture of myrrh	½ oz.
Tincture of rhatany	½ oz.
Tincture of kino	½ oz.
Camphor water	6½ ozs.

Mix. The gargle selected should be used either every two or every four hours, or three times a day, the throat being gargled twice at each time and the process continued as long as the patient can support the want of breath. Care should be taken in all cases not to swallow the gargle, as it may act unpleasantly on the bowels.

Stimulating Gargles.

No. 6. Take of—

Tincture of capsicum	2 drs.
Tincture of myrrh	½ oz.
Tincture of bark	½ oz.
Camphor water	7 ozs.

Mix.

No. 7. Take of—

Solution of chloride of lime	8 drs.
Syrup of ginger	1 oz.
Water	7 ozs.

Mix.

No. 8. Take of—

Infusion of roses	9 ozs.
Syrup of roses	1 oz.
Diluted sulphuric acid	1 dr.

Mix.

No. 9. Take of—

Infusion of roses	7 ozs.
Burnt alum	20 grs.
Tincture of myrrh	½ oz.
Simple syrup	½ oz.

Mix, and make a gargle.

No. 10. Take of—

Cayenne pepper	1 dr.
Vinegar	1 pt.

Macerate for three days, frequently shaking the bottle; carefully filter through paper, to prevent the passage of any particle of pepper. Then take of this—

Cayenne pepper	3½ ozs.
Camphor water	3½ ozs.
Tincture of myrrh	½ oz.
Simple syrup	½ oz.

Mix, and make a gargle, to be used in cases of malignant sore throat, increasing the quantity of the cayenne vinegar half an ounce every time the gargle is repeated. The above preparation of cayenne or capsicum vinegar makes an excellent stimulating condiment with cold meat, useful for persons with weak or sluggish digestion.

No. 11. Take of—

Barley water	10 ozs.
Diluted nitric acid	20 drops.
Diluted muriatic acid	10 drops.
Tincture of myrrh	½ oz.
Simple syrup	1 oz.

Mix. A good gargle when used with a little water, in cases of sloughing or *phagedenic* sore throat.

Plain warm water, salt and water, vinegar and water, or water in which saltpetre or alum are dissolved, may be used as gargles in cases where simple relaxing or astringent gargles are required.

Collyriums, or Eye Waters.

Lotions for the eyes are principally of two kinds—those which relax and soothe, and those which stimulate and contract.

Sedative Lotions for the Eyes.

Warm water is the most universal, and certainly the simplest of all applications for the eyes; care, however, must be taken that the temperature does not exceed 80° or 85°.

Before proceeding to give prescriptions for lotions or washes for the eyes, it is necessary to observe here, that in all cases in which those delicate organs are affected, as little actual contact with the part as possible should be carried on. Dabbing the eye with cloths wetted in the lotion or warm water is by many persons considered the best, indeed, the proper mode of procedure; this, however, is a decided mistake, and an error more likely to injure than benefit the affected organ. When fomentations are required, a piece of lint four or five times doubled to the size of the part should be soaked in the liquid ordered, and the excess of moisture pressed out, laid smoothly over the closed eye, a thin handkerchief or length of bandage being passed across

the head merely to keep the dressings in their place; but when the eye is to be washed or bathed in the lotion prescribed, an eye-glass, a vessel made for the purpose, and of a proper shape, should always be employed. Into this species of egg-cup glass a portion of the lotion is to be poured, till the vessel is full; the lids of the affected eye are then to be separated with the thumb and finger of the left hand, and so kept apart till the right hand has placed and fitted the glass of lotion to the eyebrow, the head being bent to meet it: the left-hand fingers are then to be removed, and by a gentle motion of the glass with the right hand, the lotion shaken over the uncovered globe of the eye. When the eye is ordered to be bathed every two or three hours, the process just described should be repeated two or three times on each occasion, fresh lotion being put in the glass every two or three hours, or on each return of the prescribed time.

No. 1. Take of—
Three poppy heads, cut small.
Water..... 10 ozs.

Boil slowly down to 6 ounces, strain, and use lukewarm, either as a fomentation on lint, or as a lotion in the eye-glass.

No. 2. Take of—
Decoction of poppy heads as above..... 6 ozs.
Sugar of lead ..... 12 grs.

Dissolve, and make a collyrium.

No. 3. Take of—
Camomile flowers..... ½ oz.
Water..... 10 ozs.

Boil slowly for two hours, strain, and use the lukewarm liquid either as a fomentation or as a lotion.

No. 4. Take of the—
Decoction of camomile, as above..... 6 ozs.
Sulphate of zinc..... 6 grs.

Dissolve, and make an eye-water.

No. 5. Take of—
Laudanum..... 1 dr.
Water..... 6 ozs.

Mix; make an eye lotion.

No. 6. Take of—
Extract of henbane.... 10 grs
Extract of hemlock ... 10 grs
Water..... 6 ozs.

Mix, and make a soothing lotion.

No. 7. Take of—
Powdered opium. ..... 4 grs.
Sugar of lead..... 10 grs.
Hot water..... 20 ozs.

Rub down, mix, and strain, to make a soothing lotion; to be used when nearly cold.

Stimulating Lotions for the Eyes.

No. 8. Take of—
Distilled water..... 8 ozs.
Spirits of wine..... 1 dr.

Mix, and make a lotion.

No. 9. Take of—
Camphor water ..... 6 ozs.
Sulphate of zinc..... 6 grs.

Dissolve.

No. 10. Take of—
Elder flower water..... 6 ozs.
Sulphate of zinc..... 6 grs.
Sugar of lead ..... 6 grs.

Dissolve.

No. 11. Take of—
Distilled water ..... 6 ozs.
Sulphate of copper..... 4 grs.

Dissolve.

No. 12. Take of—
Distilled water..... 6 ozs.
Lunar caustic..... 3 grs.

Dissolve.

A TABLE OF THE DOSES OF THE ARTICLES MOST FREQUENTLY EMPLOYED IN MEDICINE.

	Adult dose.
Aloes powder.....	5 to 10 grs.
Alum powder	10 to 20 grs.
Ammonia, carbonate...	5 to 10 grs.
Antimony powder.....	4 to 6 grs.
Aromatic confection....	10 to 20 grs.
Asafœtida.....	2 to 5 grs.
Bark, Peruvian, powder	1 to 2 drs.
Belladonna extract.....	½ to 1½ grs.
Benzoic acid	5 to 10 grs.
Bismuth, nitrate...	5 to 10 grs.
Calomel	4 to 6 grs.

	Adult dose.
Calumba powder.....	2 to 6 grs.
Camphor	1 to 4 grs.
Catechu infusion.....	1 to 2 ozs.
Chloroform	3 to 10 drops
Colchicum powder.... .	3 to 8 grs.
Colchicum vinegar....	20 to 60 drops
Colchicum wine.....	20 to 60 drops
Colocynth extract....	5 to 10 grs.
Colocynth powder.... .	4 to 3 grs.
Croton oil.....	1 to 2 drops
Cubebs oil.....	10 to 20 drops

	Adult dose.
Cubebs powder	½ to 1 dr.
Digitalis extract	1 to 5 grs.
Dover's powder	10 grs.
Elaterium	¼ to 1 gr.
Ergot of rye	30 to 60 grs.
Galbanum	4 to 10 grs.
Gentian extract	5 to 10 grs.
Gentian infusion	1 to 2 ozs.
Ginger powder	3 to 6 grs.
Gualacum powder	10 to 20 grs.
Gum	2 to 3 drs.
Henbane extract	10 to 15 grs.
Iodine	½ to ¾ grs.
Iodide of potassium	3 to 10 grs.
Ipecacuanha powder	1 gr.
" as an emetic,	10 grs.
Ipecacuanha wine	10 to 30 drops
Jalap powder	10 to 15 grs.
James's powder	4 to 6 grs.
Kino powder	5 to 10 grs.
Magnesia, calcined	½ to 1 dr.
Magnesia, carbonate	1 to 1½ drs.
Manna	2 to 4 drs.
Mercury	½ to 1 oz.
Morphia, acetate	¼ to 1 gr.
Musk	5 to 10 grs.
Oil, castor	6 to 8 drs.
Oil, essential, of peppermint, etc	1 drop.
Opium gum	1 to 2 grs.
Opium powder	1 gr.
Poppy extract	10 to 15 grs.
Potass, bicarbonate	20 to 30 grs.
Potass, sulphate	20 to 60 grs.
Quassia infusion	1 to 2 ozs.
Quinine	1 to 6 grs.
Rhubarb extract	5 to 10 grs.
Rhubarb powder	10 to 15 grs.
Salts, Epsom	6 to 10 drs.
Salts, tasteless	1 oz.
Sarsaparilla extract	1 to 2 drs.
Sarsaparilla powder	½ to 2 drs.
Sarsaparilla, compound decoction	4 to 6 ozs.
Scammony powder	10 to 15 grs.
Senna confection	2 to 4 drs.
Senna infusion	2 to 3 ozs.
Senna powder	1 to 1½ drs.
Soda, carbonate	20 to 60 grs.
Squills powder	1 to 3 grs.
Squills syrup	1 to 2 drs.
Squills vinegar	30 to 60 drops
Sulphur, milk of	2 to 3 drs.
Sulphur, sublimed	2 drs.
Tartar emetic	1 to 2 grs.
Turpentine	½ to 4 drs.
Tolu balsam	20 to 30 grs.
Tolu syrup	2 to 4 drs.
Tragacanth, compound powder	20 to 40 grs.
Valerian powder	10 grs.
Whortleberry powder	20 to 40 grs.
Zinc, sulphate	1 to 2 grs.
Zinc, as an emetic	15 to 30 grs.

For the dose of liquid preparations, see "Tincture." In the above list of drugs, the amounts ordered are for adult males; as a general rule, females require one-fourth less than males. For the exact quantities necessary for children it is not easy to lay down any special rule, as some children require a much larger proportion than others. Of calomel and purgative medicines, children can bear very large doses in proportion to the standard quantity for the adult; with opium and the narcotics, the fact is just the reverse, all such articles demanding great care and judgment. The following table is acted upon by some medical men, but we cannot recommend it as a *certain* guide to the exact quantity to be given; to ascertain that fact, the reader is referred either to the article in its place in the Recipe Book, or to the prescriptions for children's powders.

RULE.

A child from 1 to 2 months requires from a fifteenth to a twenty-fourth of an adult dose.

A child at 6 months requires one-eighteenth of a full dose.

A child from 9 to 12 months requires one-fifteenth of an adult or full dose.

A child of 2 years, one-fourteenth.

A child of 5 years, three-eighths.

A child of 8 years, one-half.

A boy of 12 years, five-eighths.

A lad of 16 years, three-fourths.

And at 20 years, seven-eighths.

To make the above remarks more practical, if we suppose the dose of powdered senna for an adult of 30 years of age to be one drachm, then for a person between 21 and 14 years of age it would be two-thirds of a drachm, or 2 scruples.

From 14 to 7 years of age, one-half, or half a drachm.

From 7 to 4 years of age, one-third of the full dose, or one scruple.

For a child 4 years of age, one-fourth, or 15 grains.

For a child 3 years of age, one-sixth, or 10 grains.

For a child 2 years of age, one-eighth, or 8 grains; and

For a child 1 year old, one-twelfth, or 5 grains.

ACCIDENTS AND EMERGENCIES.

BY THE PUBLISHER.

ACCIDENTS.—*Always send for a surgeon immediately an accident occurs, but treat as directed until he arrives.*

In both Scalds and Burns, the following facts cannot be too firmly impressed on the mind of the reader, that in either of these accidents the *first, best,* and *often the only remedies required,* are sheets of wadding, fine wool, or carded cotton, and in default of these, violet powder, flour, magnesia, or chalk. The object for which these several articles are employed is the same in each instance; namely, to exclude the air from the injured part; for if the air can be effectually shut out from the raw surface, and care is taken not to expose the tender part till the new cuticle is formed, the cure may be safely left to nature. The moment a person is called to a case of scald or burn, he should cover the part with a sheet or a portion of a sheet of wadding, taking care not to break any blister that may have formed, or stay to remove any burnt clothes that may adhere to the surface, but as quickly as possible envelop every part of the injury from all access of the air, laying one or two more pieces of wadding on the first, so as effectually to guard the burn or scald from the irritation of the atmosphere; and if the article used is wool or cotton, the same precaution, of adding more material where the surface is thinly covered, must be adopted; a light bandage finally securing all in their places. Any of the popular remedies recommended below may be employed when neither wool, cotton, nor wadding are to be procured, it being always remembered that that article which will best exclude the air from a burn or scald is the best, quickest, and least painful mode of treatment. And in this respect nothing has surpassed cotton loose or attached to paper as in wadding.

If the Skin is much Injured in Burns, spread some linen pretty thickly with chalk ointment, and lay over the part, and give the patient some brandy and water if much exhausted; then send for a medical man. If not much injured, and very painful, use the same ointment, or apply carded cotton dipped in lime water and linseed oil. If you please, you may lay cloths dipped in ether over the parts, or cold lotions. Treat scalds in the same manner, or cover with scraped raw potato; but the chalk ointment is the best. In the absence of all these, cover the injured part with molasses, and dust over it plenty of flour.

Body in Flames.—Lay the person down on the floor of the room, and throw the tablecloth, rug, or other large cloth over him, and roll him on the floor.

Dirt in the Eye.—Place your forefinger upon the cheek-bone, having the patient before you; then draw up the finger, and you will probably be able to remove the dirt; but if this will not enable you to get at it, repeat this operation while you have a netting-needle or bodkin placed over the eyelid; this will turn it inside out, and enable you to remove the sand, or eyelash, etc., with the corner of a fine silk

handkerchief. As soon as the substance is removed, bathe the eye with cold water, and exclude the light for a day. If the inflammation is severe, take a purgative, and use a refrigerant lotion.

Lime in the Eye.—Syringe it well with warm vinegar and water (1 oz. to 8 ozs. of water); take a purgative, and exclude light.

Iron or Steel Spiculæ in the Eye.—These occur while turning iron or steel in a lathe, and are best remedied by doubling back the upper or lower eyelid, according to the situation of the substance, and with the flat edge of a silver probe, taking up the metallic particle, using a lotion made by dissolving six grains of sugar of lead, and the same of white vitriol, in six ounces of water, and bathing the eye three times a day till the inflammation subsides. Another plan is—Drop a solution of sulphate of copper (from one to three grains of the salt to one ounce of water) into the eye, or keep the eye open in a wine-glass of the solution. Take a purgative, bathe with cold lotion, and exclude light to keep down inflammation.

Dislocated Thumb.—This is frequently produced by a fall. Make a clove hitch, by passing two loops of cord over the thumb, placing a piece of rag under the cord to prevent it cutting the thumb; then pull in the same line as the thumb. Afterwards apply a cold lotion.

Cuts and Wounds.—Clean cut wounds, whether deep or superficial, and likely to heal by the first intention, should never be washed or cleaned, but at once evenly and smoothly closed by bringing both edges close together, and securing them in that position by adhesive plaster. Cut thin strips of sticking-plaster, and bring the parts together; or if large and deep, cut two broad pieces, so as to look like the teeth of a comb, and place one on each side of the wound, which must be cleaned previously. These pieces must be arranged so that they shall interlace one another; then, by laying hold of the pieces on the right side with one hand, and those on the other side with the other hand, and pulling them from one another, the edges of the wound are brought together without any difficulty.

Ordinary Cuts are dressed by thin strips, applied by pressing down the plaster on one side of the wound, and keeping it there and pulling in the opposite direction; then suddenly depressing the hand when the edges of the wound are brought together.

Contusions are best healed by laying a piece of folded lint, well wetted with the extract of lead, on the part, and, if there is much pain, placing a hot bran poultice over the dressing, repeating both, if necessary, every two hours. When the injuries are very severe, lay a cloth over the part, and suspend a basin over it filled with cold lotion. Put a piece of cotton into the basin, so that it shall allow the lotion to drop on the cloth, and thus keep it always wet.

Hemorrhage, when caused by an artery being divided or torn, may be known by the blood issuing out of the wound in leaps or jerks, and being of a bright scarlet color. If a vein is injured, the blood is darker and flows continuously. To arrest the latter, apply pressure by means of a compress and bandage. To arrest arterial bleeding, get a piece of wood (part of a mop handle will do), and tie a piece of tape to one end of it; then tie a piece of tape loosely over the arm, and pass the other end of the wood under it; twist the stick round and round until the tape compresses the arm sufficiently to arrest the bleeding, and then confine the other end by tying the string around the arm. A compress made by enfolding a penny piece in several folds of lint or linen should, however, be first placed under the tape and over the artery. If the bleeding is very obstinate, and it occurs

in the *arm*, place a cork underneath the string, on the inside of the fleshy part, where the artery may be felt beating by any one; if in the *leg*, place a cork in the direction of a line drawn from the inner part of the knee towards the outer part of the groin. It is an excellent thing to accustom yourself to find out the position of these arteries, or, indeed, any that are superficial, and to explain to every person in your house where they are, and how to stop bleeding. If a stick cannot be got, take a handkerchief, make a cord bandage of it, and tie a knot in the middle; the knot acts as a compress, and should be placed over the artery, while the two ends are to be tied around the thumb. Observe *always to place the ligature between the wound and the heart.* Putting your finger into a bleeding wound, and making pressure until a surgeon arrives, will generally stop violent bleeding.

Bleeding from the Nose, from whatever cause, may generally be stopped by putting a plug of lint into the nostrils; if this does not do, apply a cold lotion to the forehead; raise the head, and place over it both arms, so that it will rest on the hands; dip the lint plug, *slightly moistened,* into some powdered gum arabic, and plug the nostrils again; or dip the plug into equal parts of powdered gum arabic and alum, and plug the nose. Or the plug may be dipped in Friar's balsam, or tincture of kino. Heat should be applied to the feet; and, in obstinate cases, the sudden shock of a cold key, or cold water poured down the spine, will often instantly stop the bleeding. If the bowels are confined, take a purgative.

Violent Shocks will sometimes stun a person, and he will remain unconscious. Untie strings, collars, etc.; loosen anything that is tight and interferes with the breathing; raise the head; see if there is bleeding from any part; apply smelling-salts to the nose, and hot bottles to the feet.

In Concussion, the surface of the body is cold and pale, and the pulse weak and small, the breathing slow and *gentle,* and the pupil of the eye generally contracted or small. You can get an answer by speaking loud, so as to arouse the patient. Give a little brandy and water, keep the place quiet, apply warmth, and do not raise the head too high. If you tickle the feet, the patient feels it.

In Compression of the Brain, from any cause, such as apoplexy or a piece of fractured bone pressing on it, there is loss of sensation If you tickle the feet of the injured person, he does not feel it. You cannot arouse him so as to get an answer. The pulse is slow and laborred; the breathing deep, labored, and *snorting;* the pupil enlarged Raise the head, loosen strings or tight things, and send for a surgeon. If one cannot be got at once, apply mustard poultices to the feet and thighs, leeches to the temples, and hot water to the feet.

Choking.—When a person has a fish bone in the throat, insert the forefinger, press upon the root of the tongue, so as to induce vomiting; if this does not do, let him swallow a *large piece* of potato or soft bread; and if these fail, give a mustard emetic.

Fainting, Hysterics, etc.—Loosen the garments, bathe the temples with water or eau-de-Cologne; open the window, admit plenty of fresh air, dash cold water on the face, apply hot bricks to the feet, and avoid bustle and excessive sympathy.

Drowning.—Attend to the following *essential rules:* 1. Lose no time. 2. Handle the body gently. 3. Carry the body face downward, with the head gently raised, and never hold it up by the feet. 4. Send for medical assistance immediately, and in the meantime act as follows: 5. Strip the body, rub it dry; then wrap it in hot blankets,

and place it in a warm bed in a warm room. 6. Cleanse away the froth and mucus from the nose and mouth. 7. Apply warm bricks, bottles, bags of sand, etc, to the armpits, between the thighs, and to the soles of the feet. 8. Rub the surface of the body with the hands enclosed in warm dry worsted socks. 9. If possible, put the body into a warm bath. 10. To restore breathing, put the pipe of a common bellows into one nostril, carefully closing the other, and the mouth; at the same time drawing downward, and pushing gently backward, the upper part of the windpipe, to allow a more free admission of air; blow the bellows gently, in order to inflate the lungs, till the breast be raised a little; then set the mouth and nostrils free, and press gently on the chest; repeat this until signs of life appear. The body should be covered the moment it is placed on the table, except the face, and all the rubbing carried on under the sheet or blanket. When they can be obtained, a number of tiles or bricks should be made tolerably hot in the fire, laid in a row on the table, covered with a blanket, and the body placed in such a manner on them, that their heat may enter the spine. When the patient revives, apply smelling-salts to the nose, give warm wine, or brandy and water. *Cautions:*—1. Never rub the body with salt or spirits. 2. Never roll the body on casks. 3. Continue the remedies for twelve hours without ceasing.

Hanging.—Loosen the cord, or whatever suspended the person; open the temporal artery or jugular vein, or bleed from the arm; employ electricity, if at hand, and proceed as for drowning, taking the additional precaution to apply eight or ten leeches to the temples.

Apparent Death from Drunkenness.—Raise the head, loosen the clothes, maintain warmth of surface, and give a mustard emetic as soon as the person can swallow.

Apoplexy and Fits Generally.—Raise the head; loosen all tight clothes, strings, etc.; apply cold lotions to the head, which should be shaved; apply leeches to the temples, bleed, and send for a surgeon.

Suffocation from Noxious Gases, etc.—Remove to the fresh air; dash cold vinegar and water in the face, neck, and breast; keep up the warmth of the body; if necessary, apply mustard poultices to the soles of the feet and spine, and try artificial respirations as in drowning, with electricity.

Lightning and Sun-Stroke.—Treat the same as apoplexy.

POISONS.—General Observations.—The abbreviations used are as follows: *E., effects or symptoms; T., treatment; A., antidotes or counter poisons; D. A., dangerous antidotes.*

A Poison is a Substance which is capable of altering or destroying some or all of the functions necessary to life. When a person is in good health, and is suddenly attacked, after having taken some food or drink, with violent pain, cramp in the stomach, feeling of sickness or nausea, vomiting, convulsive twitchings, and a sense of suffocation; or if he be seized, under the same circumstances, with giddiness, delirium, or unusual sleepiness, then poisoning may be supposed.

Poisons have been divided into four classes: 1. Those causing local symptoms. 2. Those producing spasmodic symptoms. 3. Narcotic or sleepy symptoms; and, 4. Paralytic symptoms. Poisons may be mineral, animal, or vegetable.

1. *Always send immediately for a medical man.* 2. Save all fluids vomited, and articles of food, cups, glasses, etc., used by the patient before being taken ill, and lock them up. 3. Examine the cups, to guide you in your treatment; that is, smell them, and look at them.

As a rule, give emetics, after poisons that cause sleepiness and rav-

ing; chalk, milk, eggs, butter, and warm water, or oil, after poison that cause vomiting and pain in the stomach and bowels, with purging; and when there is no inflammation about the throat, tickle it with a feather to excite vomiting.

Arsenic—*(White arsenic; orpiment,* or *yellow arsenic; realgar, red arsenic; Scheele's green,* or *arsenite of copper; King's yellow; ague drops;* and *arsenical paste.)*—E. Little or no taste. Within an hour, heat and pain in the stomach, followed by vomiting of green, yellow, and bloody matter, burning, and violent thirst; purging, and twisting about the navel; pulse small, quick, and irregular, breathing labored, voice hoarse, speaking painful; skin cold and clammy. Sometimes there are cramps and convulsions, followed by death. T. Give plenty of warm water, *new milk* in large quantities, lime water, white of egg, mixed with gruel or honey, gruel, linseed tea; apply leeches to the bowels, foment, and give starch or gruel enemas. Scrape the iron rust off anything you can get at, mix it with plenty of water, and give in large draughts frequently, and give an emetic of mustard or ipecacuanha. The chief dependence, however, must be placed on the use of the stomach-pump. *Caution.*—Never give large draughts of fluid until those given before have been vomited, because the stomach will not contract properly if filled with fluid, and the object is to get rid of the poison as speedily as possible.

Copper—*(Blue vitriol,* or *bluestone; verdigris; verditer; verdigris crystals.)*—E. An acid, rough, disagreeable taste in the mouth; a dry, parched tongue, with sense of strangling in the throat; coppery eructations; frequent spitting; nausea; frequent desire and effort to vomit, or copious vomiting; severe darting pains in the stomach; griping; frequent purging; belly swollen and painful; skin hot, and violent burning thirst; breathing difficult; intense headache and giddiness, followed by cold sweats, cramps in the legs, convulsions, and death. A. White of eggs mixed with water (twelve to one pint), to be given in wine-glassfuls every two minutes; iron filings mixed with water, or very strong coffee, accompanied by small and repeated doses of castor oil. D. A. Vinegar, bark, alkalies, gall nuts. T. If there is much pain in the belly or stomach, apply leeches. Give large draughts of milk and water, to encourage vomiting.

Mercury—*(Corrosive sublimate; calomel; red precipitate; vermilion; turbeth mineral; prussiate of mercury.)*—E. Acid metallic taste; tightness and burning in the throat; pain in the back part of the mouth, stomach, and bowels; anxiety of countenance; nausea; and vomiting of bloody and bilious fluids; profuse purging, and difficulty of making water; pulse small, hard, and quick; skin clammy, icy coldness of the hands and feet; and death in 24 or 36 hours. A. White of eggs mixed with water, given as above; milk; flour and water, mixed pretty thick; linseed tea; and barley water. T. Give large draughts of warm water, if you cannot get anything else: strong emetic of ipecacuanha, the stomach-pump, a dose of castor oil and laudanum. Foment the bowels with poppy-head fomentations, and apply leeches if the belly is very tender.

Antimony—*(Tartar emetic; butter of; Kermes' mineral.)*—E. A rough metallic taste in the mouth, nausea, copious vomitings, sudden hiccup, purging, colicy pains, frequent and violent cramps, sense of choking, severe heartburn, pain at the pit of the stomach, difficult breathing, wildness of speech, cramps in the legs, and death. A. Decoction or tincture of galls; strong tea; decoction or powder of Peruvian bark. D. A. White vitriol, ipecacuanha, as emetics. T. Give

large draughts of water, or sugar and water, to promote vomiting; apply leeches to the throat and stomach, if painful; and give one grain of extract of opium dissolved in a wine-glass of sugar and water, as soon as the vomiting ceases, and repeat three times at intervals of a quarter of an hour; and finally, one grain, in a little castor oil emulsion, every six hours.

Tin—*(Butter of tin; putty powder.)*—E. Colic and purging. A. **Milk.** T. Give warm or cold water to promote vomiting, or tickle the throat with a feather.

Zinc—*(White vitriol; flowers of; chloride of.)*—E. An astringent taste, sensation of choking, nausea, vomiting, purging, pain and burning in the throat and stomach, difficult breathing, pallor and coldness of the surface, pinched face, cramps of the extremities, but, with the exception of the chloride, seldom death. A. For the two first give copious draughts of milk, and white of eggs and water, mucilage, and olive oil; for the third, carbonate of soda, and warm water in frequent draughts, with the same as for the other compounds. T. Relieve urgent symptoms by leeching and fomentations, and after the vomiting giv castor oil. For the chloride, use frictions and warmth.

Silver—*(Lunar caustic; flowers of silver.)* **Gold**—*(Chloride of;)* and **Bismuth**—*(Nitrate; flowers of; pearl white;)*—Are not frequently met with as poisons. E. Burning pain in the throat, mouth, accompanied with the usual symptoms of corrosive poisons. A. For silver, common salt and water; for gold and bismuth, no antidotes are known. T. Give milk and mucilaginous fluids, and castor oil.

Acids—*(Hydrochloric,* or *spirit of salt; nitric,* or *aquafortis; sulphuric,* or *oil of vitriol).*—Acid burning taste, acute pain in the gullet and throat, vomiting of bloody fluid, which effervesces when chalk is added to it; hiccup, tenderness of the belly, cold sweats, pinched face, convulsions, and death. A. Give *calcined* magnesia, chalk, soap and water. Administer frequent draughts of water to weaken the acid; the carbonate of soda, potass, or magnesia, to neutralize it; thick soap suds, made with common soap; chalk, or in default of the alkalies and chalk, break down the plaster of the wall or ceiling, mix in water, and give the sufferer. Excite vomiting, and repeat the remedies till all the acid is neutralized.

Chlorine *(Gas).*—E. Violent coughing, tightness of the chest, debility, inability to stand. A. The vapor of caustic ammonia to be inhaled, or 10 drops of liquid ammonia to 1 oz. of water to be taken. T. Dash cold water over the face, and relieve urgent symptoms.

Lead—*(Sugar of; red lead; wine sweetened by; and water impregnated with).*—E. Sugary astringent metallic taste, tightness of the throat, colicy pains, violent vomiting, hiccup, convulsions, and death. A. Epsom or Glauber's salt; plaster of Paris; or phosphate of soda. T. An emetic of sulphate of zinc (24 grs. to ½ pt. of water); leeches to belly; fomentations if necessary; and a castor oil mixture with laudanum

Phosphorus.—E. Intense burning and pain in the throat and stomach. A. Magnesia and carbonate of soda. T. Large draughts of cold water, and tickle the throat with a feather. *Caution.*—Do not give oil or milk.

Lime.—E. Burning in the throat and stomach, cramps in the belly, hiccup, vomiting, and paralysis of limbs. A. Vinegar or lemon juice. T. Thin starch water to be drank frequently.

Alkalies—*(Caustic; potash; soda; ammonia).*—E. Acrid, hot, disagreeable taste; burning in the throat, nausea, and vomiting bloody

matter; profuse purging, pain in the stomach, colic, convulsions, and death. A. Vinegar and vegetable acids. T. Give linseed tea, milk, almond or olive oil, and excite vomiting.

Baryta—*(Carbonate, pure,* and *muriate).*—See "Lime."

Nitre.—E. Heartburn, nausea, violent vomiting, purging, convulsions, difficult breathing, violent pain in the bowels, kidney, and bladder, with bloody urine. T. Emetics, frequent draughts of barley water, with castor oil and laudanum.

Narcotic Poisons—*(Bane berries; fools' parsley; deadly nightshade; water hemlock; thorn apple; opium; camphor, etc.).*—E. Giddiness, faintness, nausea, vomiting, stupor, delirium, and death. T. Give emetics, large draughts of fluids, tickle the throat, apply smelling-salts to the nose, dash cold water over the face and chest, apply mustard poultices, and, above all, endeavor to rouse the patient by walking between two persons; and, if possible, by electricity; and give 40 drops of sal-volative in strong coffee every half hour.

Vegetable Irritating Poisons—*(Mezereon; monk's-hood; bitter apple; gamboge; white hellebore, etc.).*—E. Acrid, biting, bitter taste, choking sensation, dryness of the throat, retching, vomiting, purging, pains in the stomach and bowels, breathing difficult, and death. T. Give emetics of camomile, mustard, or sulphate of zinc; large draughts of warm milk, or other bland fluids; foment and leech the belly if necessary, and give strong *infusion* of coffee.

Oxalic Acid.—E. Vomiting and acute pain in the stomach, general debility, cramps, and death. A. Chalk. T. Give large draughts of lime water or magnesia.

Spanish Flies.—E. Acrid taste, burning heat in the throat, stomach, and belly, bloody vomitings, colic, purging, retention of urine, convulsions, death. T. Large draughts of olive oil, thin gruel, milk, starch enemas, linseed tea, laudanum, and camphorated water.

Poisonous Fish—*(Old-wife; sea-lobster; mussel; tunny; blower; rock-fish, etc.).*—E. Intense pain in the stomach after swallowing the fish, vomiting, purging, and sometimes cramps. T. Give an emetic; excite vomiting by tickling the throat, and plenty of warm water. Follow emetics by active purgatives, particularly of castor oil and laudanum, or opium and calomel, and abate inflammation by the usual remedies.

Bites of Reptiles—*(Viper; black viper; Indian serpents; rattlesnake).*—E. Violent and quick inflammation of the part, extending toward the body, soon becoming livid; nausea, vomiting, convulsions, difficult breathing, mortification, cold sweats, and death. T. Suppose that the wrist has been bitten: immediately tie a tape between the wound and the heart, scarify the parts with a penknife, razor, or lancet, and apply a cupping-glass over the bite, frequently removing it and bathing the wound with volatile alkali, or heat a poker and burn the wound well, or drop some of Sir Wm. Burnett's disinfecting fluid into the wound, or cauterize the bite freely with lunar caustic, but not till the part has been well sucked with the mouth, or frequently washed and cupped. The strength is to be supported by brandy, ammonia, ether, and opium. Give plenty of warm drinks, and cover up in bed.

Bite of Mad Animals.—E. Hydrophobia, or a fear of fluids. T. Tie a string tightly over the part, cut out the bite, and cauterize the wound with a red-hot poker, lunar caustic, or Sir Wm. Burnett's disinfecting fluid. Then apply a piece of "spongio-piline," give a purgative, and plenty of warm drink. Whenever chloroform can be procured, sprinkle a few drops upon a handkerchief, and apply to the

nose and mouth of the patient before cauterizing the wound. When the breathing appears difficult, cease the application of the chloroform. A physician, writing in the *Times*, strongly urges this course, and states that there is no danger, with ordinary care, in the application of the chloroform, while the cauterization may be more effectively performed.

Insect Stings—*(Wasp, bee, gnat, hornet, gadfly, scorpion).*—E. Swelling, nausea, and fever. T. Press the barrel of a watch-key over the part, so as to expose the sting, which must be removed. Give 15 drops of hartshorn or sal-volatile in half a wine-glass of camomile tea, and cover the part stung with a piece of lint soaked in extract of lead.

Cautions for the Prevention of Accidents.—The following regulations should be engraved on the memory of all:

As many sudden deaths come by water, particular caution is therefore necessary in its vicinity.

Stand not near a tree, or any leaden spout, iron gate, or palisade, in times of lightning.

Lay loaded guns in safe places, and never imitate firing a gun in jest.

Never sleep near charcoal; if drowsy at any work where charcoal fires are used, take the fresh air.

Carefully rope trees before they are cut down, that when they fall they may do no injury.

When benumbed with cold, beware of sleeping out of doors; rub yourself, if you have it in your power, with snow, and do not hastily approach the fire.

Beware of damps.

Air vaults, by letting them remain open some time before you enter, or scattering powdered lime in them. Where a lighted candle will not burn, animal life cannot exist; it will be an excellent caution, therefore, before entering damp and confined places, to try this simple experiment.

Never leave saddle or draught horses, while in use, by themselves: nor go immediately behind a led horse, as he is apt to kick.

Do not ride on footways.

Be wary of children, whether they are up or in bed; and particularly when they are near the fire, an element with which they are very apt to amuse themselves.

Leave nothing poisonous open or accessible; and never omit to write the word "POISON" in large letters upon it, wherever it may be placed.

In walking the streets keep out of the line of the cellars, and never look one way and walk another.

Never throw pieces of orange peel, or broken glass bottles, into the streets.

Never meddle with gunpowder by candle-light.

In trimming a lamp with naphtha, never fill it. Leave space for the spirit to expand with warmth.

Never quit a room leaving the poker in the fire.

When the brass rod of the stair carpet becomes loose, fasten it immediately.

In opening effervescing drinks, such as soda water, hold the cork in your hand.

Quit your house with care on a frosty morning.

Have your horses' shoes roughed directly there are indications of frost.

Keep lucifer matches in their cases, and never let them be strewed about.

Accidents in Carriages.—It is safer, as a general rule, to keep your place than to jump out. Getting out of a gig over the back, provided you can hold on a little while, and run, is safer than springing from the side. But it is best to keep your place, and hold fast. In accidents people act not so much from reason as from excitement; but good rules, firmly impressed upon the mind, generally rise uppermost, even in the midst of fear.

Life Belts.—An excellent and cheap life belt, for persons proceeding to sea, bathing in dangerous places, or learning to swim, may be thus made: Take a yard and three-quarters of strong jean, double, and divide into nine compartments. Let there be a space of two inches after each third compartment. Fill the compartments with very fine cuttings of cork, which may be made by cutting up old corks, or (still better) purchased at the corkcutter's. Work eyelet holes at the bottom of each compartment, to let the water drain out. Attach a neck-band and waist-strings of stout boot-web, and sew them on strongly.

ANOTHER.—Cut open an old boa, or victorine, and line it with fine cork-cuttings instead of wool. For ladies going to sea these are excellent, as they may be worn in stormy weather, without giving appearance of alarm in danger. They may be fastened to the body by ribbons or tapes, of the color of the fur. Gentlemen's waistcoats may be lined the same way.

Charcoal Fumes.—The usual remedies for persons overcome with the fumes of charcoal in a close apartment are, to throw cold water on the head, and to bleed immediately; also apply mustard or hartshorn to the soles of the feet.

Cautions in Visiting the Sick.—Do not visit the sick when you are fatigued, or when in a state of perspiration, or with the stomach empty—for in such conditions you are liable to take the infection. When the disease is very contagious, place yourself at the side of the patient which is nearest to the window. Do not enter the room early in the morning, before it has been aired; and when you come away, take some food, change your clothing immediately, and expose the latter to the air for some days. Tobacco smoke is a preventive of malaria.

Children and Cutlery.—Serious accidents having occurred to babies through their catching hold of the blades of sharp instruments the following hint will be useful. If a child lay hold of a knife or razor, do not try to pull it away, or to force open the hand; but, holding the child's hand that is empty, offer to its other hand anything nice or pretty, and it will immediately open the hand, and let the dangerous instrument fall.

Directing Letters.—It may sound like being over particular, but we recommend persons to make a practice of fully addressing notes, etc., on all occasions; when, in case of their being dropped by careless messengers (which is not a rare occurrence), it is evident for whom they are intended, without undergoing the inspection of any other parties bearing a similar name.

Prevention of Fires.—The following simple suggestions are worthy of observation: Add one ounce of alum to the last water used to rinse children's dresses, and they will be rendered uninflammable, or so slightly combustible that they would take fire very slowly, if at all, and would not flame. This is a simple precaution, which may be adopted in families of children. Bed curtains, and linen in general

may also be treated in the same way. Since the occurrence of many amentable deaths by fire, arising partly from the fashion of wearing crinoline, the tungstate of soda has been recommended for the purpose of rendering any article of female dress incombustible. A patent starch is also sold, with which the tungstate of soda is incorporated. The starch should be used whenever it can be procured; and any chemist will intimate to the purchaser the manner in which tungstate of soda should be employed.

Precautions in case of Fire.—The following precautions should be impressed upon the memory of all our readers:

Should a fire break out, send off to the nearest engine or police station.

Fill buckets with water, carry them as near the fire as possible, dip a mop into the water, and throw it in showers on the fire, until assistance arrives.

If a fire is violent, wet a blanket, and throw it on the part which is in flames.

Should a fire break out in the kitchen chimney, or any other, a blanket wetted should be nailed to the upper end of the mantlepiece, so as to cover the opening entirely; the fire will then go out of itself; for this purpose two knobs should be permanently fixed in the upper ends of the mantlepiece, on which the blankets may be hitched.

Should the bed or window curtains be on fire, lay hold of any woolen garment, and beat it on the flames until extinguished.

Avoid leaving the window or door open in the room where the fire has broken out, as the current of air increases the force of the fire.

Should the staircase be burning, so as to cut off all communication, endeavor to escape by means of a trap-door in the roof, a ladder leading to which should always be at hand.

Avoid hurry and confusion; no person except a fireman, friend, or neighbor, should be admitted.

If a lady's dress takes fire, she should endeavor to roll herself in a rug, carpet, or the first woolen garment she meets with.

It is a good precaution to have always at hand a large piece of baize, to throw over a female whose dress is burning, or to be wetted and thrown over a fire that has recently broken out.

A solution of pearlash in water, thrown upon a fire extinguishes it instantly. The proportion is a quarter of a pound, dissolved in some hot water, and then poured into a bucket of common water.

It is recommended to householders to have two or three fire buckets and a carriage mop with a long handle near at hand; they will be found essentially useful in case of fire.

All householders, but particularly hotel, tavern, and inn-keepers, should exercise a wise precaution by directing that the last person up should perambulate the premises previous to going to rest, to ascertain that all fires are safe and lights extinguished.

To Extinguish a Fire in a Chimney.—So many serious fires have been caused by chimneys catching fire, and not being quickly extinguished, that the following method of doing this should be generally known. Throw some powdered brimstone on the fire in the grate, or ignite some on the hob, and then put a board or something in the front of the fire-place, to prevent the fumes descending into the room. The vapor of the brimstone, ascending the chimney, will then effectually extinguish the soot on fire.

To extinguish a fire in the chimney, besides any water at hand, throw on it salt, or a handful of flour of sulphur, as soon as you can

obtain it; keep all the doors and windows tightly shut, and hold before the fire-place a blanket, or some woolen article, to exclude the air.

IN ESCAPING FROM A FIRE, creep or crawl along the room with your face close to the ground. Children should be early taught how to press out a spark when it happens to reach any part of their dress, and also that running into the air will cause it to blaze immediately.

READING IN BED at night should be avoided, as, besides the danger of an accident, it never fails to injure the eyes.

TO HEAT A BED at a moment's notice, throw a little salt into the warming-pan, and suffer it to burn for a minute previous to use.

FLOWERS and shrubs should be excluded from a bed-chamber.

SWIMMING.—Every person should endeavor to acquire the power of swimming. The fact that the exercise is a healthful accompaniment of bathing, and that lives may be saved by it, even when least expected, is a sufficient argument for its recommendation. The art of swimming is, in reality, very easy. The first consideration is not to attempt to learn too hastily. That is to say, you must not expect to succeed in your efforts to swim, until you have become accustomed to the water, and have overcome your repugnance to the coldness and novelty of bathing. Every attempt will fail until you have acquired a certain confidence in the water, and then the difficulty will soon vanish.

Dr. Franklin's Advice to Swimmers.—"The only obstacle to improvement in this necessary and life-preserving art is fear; and it is only by overcoming this timidity that you can expect to become a master of the following acquirements: It is very common for novices in the art of swimming to make use of corks or bladders to assist in keeping the body above water; some have utterly condemned the use of them; however, they may be of service for supporting the body while one is learning what is called the stroke, or that manner of drawing in and striking out the hands and feet that is necessary to produce progressive motion. But you will be no swimmer till you can place confidence in the power of the water to support you: I would, therefore, advise the acquiring that confidence in the first place; especially as I have known several who, by a little practice, necessary for that purpose, have insensibly acquired the stroke, taught, as it were, by nature. The practice I mean is this: choosing a place where the water deepens gradually, walk coolly into it till it is up to your breast; then turn round your face to the shore, and throw an egg into the water between you and the shore; it will sink to the bottom, and be easily seen there if the water be clear. It must lie in the water so deep that you cannot reach to take it up but by diving for it. To encourage yourself in order to do this, reflect that your progress will be from deep to shallow water, and that at any time you may, by bringing your legs under you, and standing on the bottom, raise your head far above the water; then plunge under it with your eyes open, which must be kept open on going under, as you cannot open your eyelids for the weight of water above you; throwing yourself toward the egg, and endeavoring by the action of your hands and feet against the water to get forward, till within reach of it. In this attempt you will find that the water bouys you up against your inclination; that it is not so easy to sink as you imagine, and that you cannot, but by active force, get down to the egg. Thus you feel the power of water to support you, and learn to confide in that power, while your endeavors to overcome it, and reach the egg, teach you the manner of acting on the water with your feet and hands, which action is afterwards used in swimming to support your head higher above the water, or to go forward through it.

"I would the more earnestly press you to the trial of this method, because I think I shall satisfy you that your body is lighter than water, and that you might float in it a long time with your mouth free for breathing, if you would put yourself into a proper posture, and would be still, and forbear struggling; yet, till you have obtained this experimental confidence in the water, I cannot depend upon your having the necessary presence of mind to recollect the posture, and the directions I gave you relating to it. The surprise may put all out of your mind.

"Though the legs, arms, and head of a human body, being solid parts, are specifically so near a little heavier than fresh water, as the trunk, particularly the upper part, from its hollowness, is so much lighter than water, so the

whole of the body, taken all together, is too light to sink wholly under water, but some part will remain above until the lungs become filled with water, which happens from drawing water to them instead of air, when a person, in the fright, attempts breathing while the mouth and nostrils are under water.

"The legs and arms are specifically lighter than salt water, and will be supported by it, so that a human body cannot sink in salt water, though the lungs were filled as above, but from the greater specific gravity of the head. Therefore a person throwing himself on his back in salt water, and extending his arms, may easily lie so as to keep his mouth and nostrils free for breathing; and by a slight motion of his hand, may prevent turning, if he should perceive any tendency to it.

"In fresh water, if a man throws himself on his back near the surface, he cannot long continue in that situation, but by proper action of his hands on the water; if he uses no such action, the legs and lower part of the body will gradually sink till he comes into an upright position, in which he will continue suspended, the hollow of his breast keeping the head uppermost.

"But if in this erect position the head be kept upright above the shoulders, as when we stand on the ground, the immersion will, by the weight of that part of the head that is out of the water, reach above the mouth and nostrils, perhaps a little above the eyes, so that a man cannot remain long suspended in water with his head in that position.

"The body continuing suspended as before, and upright, if the head be leaned quite back, so that the face look upward, all the back part of the head being under water, and its weight consequently, in a great measure, supported by it, the face will remain above water quite free for breathing, will rise an inch higher every inspiration, and sink as much every expiration, but never so low as that the water may come over the mouth.

"If, therefore, a person unacquainted with swimming, and falling accidentally into the water, could have presence of mind sufficient to avoid struggling and plunging, and to let the body take this natural position, he might continue long safe from drowning, till, perhaps, help should come; for, as to the clothes, their additional weight when immersed is very inconsiderable, the water supporting it; though, when he comes out of the water, he will find them very heavy indeed.

"But I would not advise any one to depend on having this presence of mind on such an occasion, but learn fairly to swim, as I wish all men were taught to do in their youth; they would, on many occasions, be the safer for having that skill; and, on many more, the happier, as free from painful apprehensions of danger, to say nothing of the enjoyment in so delightful and wholesome an exercise. Soldiers particularly should, methinks, all be taught to swim; it might be of frequent use, either in surprising an enemy or saving themselves; and if I had now boys to educate, I should prefer those schools (other things being equal) where an opportunity was afforded for acquiring so advantageous an art, which, once learned, is never forgotten.

"I know by experience, that it is a great comfort to a swimmer, who has a considerable distance to go, to turn himself sometimes on his back, and to vary, in other respects, the means of procuring a progressive motion.

"When he is seized with the cramps in the leg, the method of driving it away is to give the parts affected a sudden, vigorous, and violent shock; which he may do in the air as he swims on his back.

"During the great heat in summer, there is no danger in bathing, however warm we may be, in rivers which have been thoroughly warmed by the sun. But to throw one's self into cold spring water, when the body has been heated by exercise in the sun, is an imprudence which may prove fatal. I once knew an instance of four young men who, having worked at harvest in the heat of the day, with a view of refreshing themselves, plunged into a spring of cold water; two died upon the spot, the third next morning, and the fourth recovered with great difficulty. A copious draught of cold water, in similar circumstances, is frequently attended with the effect in North America.

"The exercise of swimming is one of the most healthy and agreeable in the world. After having swam for an hour or two in the evening one sleeps coolly the whole night, even during the most ardent heat of summer. Perhaps, the pores being cleansed, the insensible perspiration increases, and occasions this coolness. It is certain that much swimming is the means of stopping diarrhœa, and even of producing a constipation. With respect to those who do not know how to swim, or who are affected with a diarrhœa at a season which does not permit them to use that exercise, a warm bath, by cleansing and purifying the skin, is found very salutary, and often effects a radical cure. I speak from my own experience, frequently repeated, and that of others, to whom I have recommended this.

"When I was a boy, I amused myself one day with flying a paper kite; and approaching the banks of a lake, which was nearly a mile broad, I tied

the string to a stake, and the kite ascended to a considerable height above the pond, while I was swimming. In a little time, being desirous of amusing myself with my kite, and enjoying at the same time the pleasure of swimming, I returned, and loosening from the stake the string, with the little stick which was fastened to it, went again into the water, where, I found that lying on my back, and holding the stick in my hand, I was drawn along the surface of the water in a very agreeable manner. Having then engaged another boy to carry my clothes round the pond, to a place which I pointed out to him on the other side, I began to cross the pond with my kite, which carried me quite over without the least fatigue, and with the greatest pleasure imaginable. I was only obliged occasionally to halt a little in my course, and resist its progress, when it appeared that by following too quickly, I lowered the kite too much; by doing which occasionally I made it rise again. I have never since that time practised this singular mode of swimming, and I think it not impossible to cross, in this manner, from Dover to Calais."

Those who prefer the aid of Belts will find it very easy and safe to make belts upon the plan explained; and by gradually reducing the floating power of the belts from day to day, they will gain confidence, and speedily acquire the art of swimming.

Accidents.—They are always sudden, and most frequently occur when least anticipated; and when the person who suffers the injury is entirely off his guard, and the mind incapable of self-reflection, or unable to discover what to do or what to advise. Such accidents as result from fire, water, or noxious gases, will be treated of under the heads of "Burns and Scalds," "Poisonous Exhalations," "Drowning," "Suspended Animation," etc.; and only those which refer to wounds or violence to the body, will be considered under this head.

As the individual injured is seldom ever able to assist himself, there are certain properties which those who act the part of the Good Samaritan on such occasions should always be prepared to exercise, and without which the services rendered, however well-intentioned, may become more hurtful than beneficial; these are *energy, coolness* and *decision*.

There are accidents of daily occurrence, where many valuable lives are either endangered or sacrificed, from the want of the most ordinary prudence and reflection; and for which, had it not been for the alarm consequent on the suddenness of the accident, or the fright occasioned by the appearance of the sufferer, a child, in many instances, might have devised a remedy. Nothing so materially tends to deprive a looker-on of his coolness and presence of mind, as the sight of blood exuding in any quantity from the body; and no accident, in general, can be more easily relieved. The friendly assistant should never forget, that every moment he delays to stop the crimson tide, while casting about for suitable means, may be fatal to the sufferer; whereas the point of his *finger* is a means always ready, when only a single vessel is injured, the pressure of that small member is sufficient to suspend all bleeding from the artery or vein.

In case of an accident involving insensibility or great bodily suffering, the first duty is to remove any weight or encumbrance from the body, and then lay it gently on the back, in such a position that the air may have free access to the sufferer, especially about the face and neck. All unnecessary examination, or moving of the person, should be avoided till some professional gentleman arrive to take the responsibility of the case. Should a bone be broken, and the fractured extremities protrude through the flesh, any attempt at reduction or setting the bone, before the arrival of the surgeon, would be highly culpable; if, however, there is any violent bleeding, it should be at once arrested. If the bleeding proceeds from the leg or arm, the seam of that part of the coat or trousers should be ripped up with a penknife, so as to expose the limb without disturbing it; the point from whence the blood

issues is then to be sought, *a finger immediately placed on the spot where the open vessel is bleeding*, and a gentle pressure established, but merely sufficient to arrest the discharge; in the mean time, a large handkerchief is to be folded in its longest direction, so as to make a kind of broad bandage, which must then be passed around the limb, *above* the wound, and also the fracture, and tied tightly; the finger is then to be removed from the wound, and if there be no further bleeding, the limb may be left alone till professionally attended; but should the blood still flow, though in diminished quantity, the bandage must be made still tighter by inserting a piece of stick under the last fold, and by giving it a few turns, compress the artery more effectually.

Arterial blood is always known by its bright scarlet color, and by its springing out in leaps or jerks; while *venous* blood is characterized by its dark purple color, and by its flowing steadily like water. The bleeding having been suppressed, the face may be bathed with cold water, and if there is great exhaustion, a small quantity of brandy and water administered occasionally.

In cases of collision, where the person has been violently shaken, and there is no external injury, only insensibility, attended with pale face, livid lips, cold hands and lower extremities, the body should be placed in a horizontal position, the head slightly raised, and bottles of hot water or heated bricks applied to the feet, legs and inside of the thighs, and small quantities of warm brandy and water given every few minutes; at the same time, ammonia or smelling salts should be applied, but cautionsly, to the nostrils. When the insensibility is attended with abrasion. laceration, or wounds of the head, the same means are to be adopted, the injuries washed with a sponge and cold water, so as to remove all dirt that may be present. The edges of the cut or lacerated part are to be next brought together, and secured by strips of adhesive plaster, and a light bandage passed over all.

Accidents—Precautions Against.—It would be a reflection on the reader's understanding, and take up too large a space in our work, to set down all the precautions that it behooves a person possessed of ordinary prudence to adopt, to guard against *avoidable* accidents, as every one knows that going too near a precipice, throwing orange-peel on the pavement, leaving a room with a poker in the fire, or scattering lucifer matches about for children to suck, or to be ignited by the tread of the foot, are all self-evident and objectionable, as probable causes of accident. Still there are some precautions that may not be so generally apparent, but which should be equally known, and which we propose to generalize, *first*, into those against accidents by lightning.

Here it should be universally known, that as lightning is only a concentrated and powerful species of electricity, the same laws that governs the latter influence the former; thus water, vegetables, and metals, are all strong conductors of electricity, or, in other words, attract it; so also are they conductors of lightning. On this account it is highly dangerous to take shelter during a thunder-storm under a tree of any description, whatever the ancients may say to the contrary about the laurel. Equally objectionable is it to stand under a cart lodge, or any out-building, where lead or zinc is used for the roofing; for the same reason it is dangerous to run under a portico, or eaves, where there are drain pipes to convey the water from the roof. The banks of lakes, rivers, and large pools of water, should for the same reason be avoided; and an umbrella, especially if it have a metal ferule, is, during a thunder-storm, the most dangerous shelter of all, being little less than a lightning conductor. It is much safer, if overtaken by

a thunder-storm, and where no house is near in which protection can be obtained, to endure the wet, button the coat over the watch-chain, close the umbrella, cover the ferule with mud, and having removed all metallic surfaces, take the middle of the road, and at a brisk walk boldly encounter the rain. Even in the best built house it is necessary to take precautions against lightning during a storm. The window, as soon as the panes become wet, is dangerous, as glass then is a conductor. The fireplace, on account of the chimney and the grate below, is also a situation to be avoided: so is the neighborhood of the bell handles and bell wires; and the doors, on account of their bright knobs. The safest part of a room is the centre, the fire-irons being covered over, and all metallic substances removed from around the space; the bed, when detached from the wall, and destitute of metallic rings, is, on account of the non-conducting property of the feathers, the safest part of the whole house.

Second, against accidents by water.

However meritorious may be the action, no person is justified in plunging into the water, to save another from drowning, unless he can swim; and even then he should defer his efforts till partial insensibility occurs, for unless the swimmer gets behind the person, and keeps himself clear of the convulsive clutch, with which a drowning man grasps his preserver, the chances are that both may sink together.

In bathing, unless a good swimmer, the person should never go out of his depth; he should at all times avoid bathing in holes, and if in lakes or rivers, whenever he finds the water particularly cold as it is near the springs, he should at once place himself beyond their reach, and on the first sensation of cramp, make for the shore.

In sailing in a small boat, whether propelled by sails or oars, the centre of gravity is always to be kept *low*; the person should never rise from his seat unless to land; more fatal accidents occur on the water from the neglect of this rule, than from any kind of casualty. When two or three persons suddenly rise up in a boat, it is almost certain to be overset, and every one in it flung into the water. With regard to skating, no ice should be ventured on till after three day's frost, and not then if the edge appear rotten, or can be pierced with a walking-stick; the person who would attempt to skate after a fall of rain, or when water lies on the ice, does so in open violation of the commonest rules of prudence.

Third, against accidents from fire.

If disturbed in the night by the alarm of fire, the person should avoid opening doors and windows; if he has to pass into other rooms to rouse and collect his family, he should close the door behind him, so as to prevent all draughts and strong currents of air. The best protection any one can have in such a situation is a blanket; with a pair of shoes on the feet, a person enveloped all but the eyes in a blanket, may pass in safety through a volume of smoke and a degree of heat that could not be effected in any other dress; the blanket being carefully held before the mouth, enables the individual to breathe with a freedom that would be impossible without such a protection. If there is water in the room, and much flame to be passed, the blanket should be first wetted, particularly the part over the head and mouth. If all escape by the stairs is cut off, the sheets of the bed should be knotted together into a rope, and one end having been secured to the bed-post, an attempt must be made to descend from the window by the other. In cases where much smoke has to be encountered, a silk handkerchief wetted in water should be passed double across the mouth, or [illegible]

over the head and fastened around the neck like a mask. As a precaution against many accidents from fire occuring in houses, a guard should invariably be placed before the grate in rooms where children are allowed to play. In cooking, or filling a lamp, if the grease of the one, or the oil of the other, should take fire, the flame should on no account be attempted to be blown out, or the face may be very seriously scorched; and as cold water only increases the mischief, if the flame cannot be extinguished by a plate, a meat cover, or any other object at hand that will smother the fire, it had better be allowed to burn out, for as soon as the unctuous matter or spirit is consumed, the ordinary combustion will be easily extinguished.

Though all that appertains to this subject will be fully entered into under its proper head, there is one point that cannot be too often repeated, namely, that as ladies' dresses are by their texture extremely liable to take fire, and such accidents are unfortunately very frequent, when they do occur, the table-cover, the curtains from the window, the hearth-rug, or a coat, should be instantly wrapped round the sufferer, who should on no account be allowed to escape, even if she has to be thrown on the ground, and rolled on the carpet.

WHAT TO DO IN CASES OF ACCIDENT.—Professor Wilder, of Cornell University, gives these short rules for action in case of accident:

For dust in the eyes, avoid rubbing—dash water into them; remove cinders, etc., with the round point of a lead pencil.

Remove insects from the ear by tepid water; never put a hard instrument into the ear.

If an artery is cut, compress above the wound; if a vein is cut, compress below.

If choked, get upon all fours, and cough.

For light burns, dip the part in cold water; if the skin is destroyed, cover with varnish.

Smother fire with carpets, etc.; water will often spread burning oil, and increase danger. Before passing through smoke, take a full breath, and then stoop low, but if carbon is suspected, walk erect.

Suck poison wounds, unless your mouth is sore. Enlarge the wound, or better, cut out the part without delay. Hold the wounded part as long as can be borne to a hot coal, or end of a segar.

In case of poisoning, excite vomiting by tickling the throat, or by water and mustard. For acid poisons give acids; white of egg is good in most cases; in cases of opium poisoning, give strong coffee, and keep moving. If in water, float on the back, with the nose and mouth projecting.

For apoplexy, raise the head and body; for fainting, lay the person flat.

Bruise.—Apply molasses spread on brown paper. Or, a plaster of chopped parsley mixed with butter. Or, electrify the part. To prevent swelling, apply a cloth five or six times doubled, dipped in cold water, and redipped when it grows warm.—*Wesley.*

Bruises.—Cover with linen, wet with vinegar and wormwood boiled together. Put a small bit of lard on the surface, and apply slightly warm. In very bad cases a leech or two will expedite the cure.

Bruises—Embrocation For.—Pour upon 2 ozs. of carbonate of ammonia, (smelling salts) as much distilled vinegar as will dissolve it; then add 1½ pts. of common rectified spirit, and shake the whole together in a bottle. It is a good remedy for sprains and bruises.

Hot Water.—In bruises, hot water is most efficacious, both by

means of insertion and fomentation, in removing pain, and totally preventing discoloration and stiffness. It has the same effect after a blow It should be applied as quickly as possible, and as hot as it can be borne. Insertion in hot water will cure that troublesome and painful thing called a whitlow. The efficacy of hot water in preventing the ill effects of fatigue is too well known to require notice.

Frost-Bites.—Keep from the fire, and rub well with snow, and then with cold water.

Lightning Stroke.—Dash cold water over the head and face, and apply friction to the spine with strong liniment, and mustard poultices to the feet.

Chimneys on Fire.—Shut all the doors and windows; stop up the bottom of the chimney with a piece of water-saturated sacking, wrapping, etc., throwing first salt, or sulphur, upon the fire.

BITES OF POISONOUS REPTILES.—The Treatment.—In all cases of bites of poisonous reptiles the first and most important duty is to suck the wound, cauterize or excise the bitten part, prevent the absorption of the *virus*, and by proper medicines arouse the patient's mind to resist the depressing influence of fear, and finally dissipate the coma that towards the end steals so fatally over the brain.

Sucking the Wound.—Unless there should be a crack in the tongue, a chap or abrasion of the lips or mouth, the most deadly virus, as we have shown, may be sucked with perfect impunity, and where the injury is in the hand or arm, the patient should suck the wound himself. When this cannot be done, however, the person who undertakes that duty should supply himself with a large basin and a jug of warm water, and, sitting on a level with the limb, grasp the part firmly with both hands, one above, the other below the wound, and applying his lips boldly and confidently over the bite, with a quick but effectual motion of the cheeks and tongue, suck all the blood and moisture from the puncture, every minute or two spitting it out into the basin, and, rinsing his mouth with the warm water, return to his task not forgetting to maintain his pressure on the limb with his two hands This sucking process should be persevered in for twelve or fifteen minutes at least; a broad piece of tape or a garter being first passed once or twice round the limb an inch or two above the wound, between it and the heart and then firmly tied.

Cauterization and Excision.—When no person can be found with sufficient resolution to suck the wound, a bandage or garter should be instantly tied round the limb *above* the wound, and if cupping-glasses are at hand, or those artificial means can be obtained recommended under "Cupping" which see, they should be applied at once, washing the part in warm water hastily before applying the glasses. These are to be removed every three or four minutes, the part again washed with clean water and a sponge, and again applied for at least half an hour. When, however, no such appliances can be obtained, the absorption having been arrested by the bandage, the wound is to be well and repeatedly washed with warm water, the fingers being used to force out all moisture or particles of blood from the bite, and the punctures freely cauterized with the nitrate of silver, which should be scraped to a point, and then forced into the apertures made by the reptile's fangs. If, however, the punctures are deep and narrow, a sharp penknife or bistoury should be used to enlarge them, so the bottom of the wound may be reached, and the place freely cauterized. When the wound is large and deep, the state of the reptile to be feared, and the pain and anxiety are very great, the part injured must without any hesitation

be cut out, the wound washed, and the raw surface on every side liberally rubbed with the caustic, warm fomentations applied over all, and the ligature or bandage round the limb continued.

To Rouse the Patient by Proper Medicines.—To effect this result, repeated doses of stimulants and anti-spasmodics are to be given, and the patient kept constantly moving, and occasionally subjected to sudden aspersions of cold water. The following draughts may be given every ten minutes or quarter of an hour.

Take of brandy, 2 drs.; spirits of sal volatile, 40 drops; tincture of valerian, ½ dr.; sulphuric ether, 15 drops, camphor water, 1 oz.

The Indian surgeons are in the habit of giving the following draught, and repeating it as often as necessary.

Take of Fowler's solution of arsenic, 30 drops; laudanum, 10 drops; peppermint water 1 oz.; lime juice, ½ oz. Mix; to be taken directly, and repeatedly every half-hour till the symptoms abate; at the same time, they employ injections of gruel, castor oil, and turpentine, till the bowels operate. In severe cases, there is no reason why such remedies should not be applied in this country.

Should neither cupping-glasses nor lunar caustic be obtainable, the part must be burnt with red-hot skewers or the point of a poker, and the wound dressed with water only, or the caustic (*potassa fusa*), strong ammonia, or strong acetic acid; or, in default of any of these, quicklime may be sprinkled into the apertures. The importance of compelling the patient to walk about, supported by two strong men, must not be lost sight of, or the necessity of occasionally dashing cold water over his head and chest forgot to be practised, as on the judicious employment of both, the hope of rousing him from the coma entirely depends. Electricity is an agent that may be employed with benefit.

DISLOCATION.—A displacement of a part; the term, however, is confined to the separation of the bones entering into the formation of a joint, from their natural situation and arrangement, and thereby rendering the articulation for the time-being useless.

Dislocation, or *luxation*, as it is surgically termed, is divided into complete and incomplete: *complete*, when the displacement is perfect, or when the head of one bone is *completely* drawn out of the socket in the other, or when the articulation has been thoroughly disunited; *incomplete*, when the joint has only been started, and the bones are merely sundered, but not absolutely separated.

Dislocations are characterized according to their situations—as a dislocation *upward*, *backward*, *forward*, and *downward*; and are yet further distinguished into simple and compound. A simple dislocation is when no injury is inflicted on the skin or muscles. A compound dislocation, when the integuments and flesh are ruptured.

Dislocations are accidents of very frequent occurrence, and may happen to almost every bone in the body, and are usually effected by sudden falls or severe blows. It sometimes happens that dislocations are accompanied with a fracture of the same bone, when, if the fracture is near the head of the bone, it is generally impossible to reduce the dislocation till the fracture has been first reunited.

Symptoms.—All dislocations are characterized by the same symptoms; these are, pain and immobility of the member, with shortening of the limb, accompanied with great pain if moved; a depression in one place, and an enlargement or swelling in another; a turning in or out of the foot or hand, according as to whether it is the leg or arm that is displaced. When the injury occurs to the hip joint, the knee is drawn up and pressed on the thigh of the sound leg, while if it is the shoulder joint, the patient invariably grasps the injured member by the elbow with the opposite hand. It should be always remembered, that when elderly people meet with heavy falls or blows, the chances are, from the greater brittleness of their bones, that they have sustained a fracture, and not a dislocation.

Dislocations occur most frequently in what are called the ball and socket joints, and next in the hinge, or *ginglymus* articulation.

Dislocation of the Shoulder.—When the bone of the arm is displaced, it is either outwardly, inwardly, behind, or below: in whatever aspect it may

be, however, an apparent cavity will be noticed where the fullness of the joint should be, and a corresponding projection observed in an opposite direction, unless the head of the bone has been pressed into the arm-pit, or behind, under the shoulder-blade. The annexed cut shows an outward dislocation of the head of the shoulder.

APPEARANCE OF A DISLOCATED SHOULDER.

The most painful of these four forms is the downward dislocation, for then the bone presses on the whole congeries of nerves and arteries, on their way to supply the arm with sensation and vitality. In the majority of cases, the extension, as the process of pulling the bone into its place is called, should be made in a direction nearly opposite to the position of the head of the bone.

There are several methods adopted for the reduction of this accident, but the two following will almost always be found successful. The patient is to be placed on his back on a mattress, or the squab of a sofa, laid on the floor, his head supported by a pillow in the manner shown in the following cut. A damp towel is then to be folded smoothly around the arm above the elbow. Upon this the operator ties a strong handkerchief, or making a hitch knot with a jack towel over it, throws the remainder over his shoulders, and having removed his right boot, takes his seat on the mattress, and placing the heel of his foot in the patient's arm-pit, either grasps the handkerchief and with both hands pulls with a slow, steady strain upon the arm he has previously bent in the manner shown, or, if the jack towel is used, he makes the extension or stretch by means of his shoulders, while he holds the arm in his hands, the heel in both cases making the counterpoise. Having, by a steady extension, gradually drawn out the head of the bone, and brought it in front of the cavity in the shoulder-blade, the slightest bend of his shoulders, or relaxation of the handkerchief, causes the stretched muscles suddenly to contract and draw the bone into the socket with an audible crack. In female cases, and younger persons, or those of delicate constitutions, the following plan will generally be found sufficient: The patient being seated in a high-backed chair, an assistant standing on the uninjured side, places his left hand under and across the arm-pit, while with his right hand spread on the top of the shoulder, he grasps and keeps firmly in its place the shoulder-blade, and in this manner makes the counterpoise or extension. The operator then grasps the bent arm above the elbow, and steadily pulls the limb till he disengages the head, when, either moving it a little inward or outward, according as the dislocation has been in an outward or inward direction, and at the same time slightly relaxing his extension, the head, as in the other case, will glide with a crack into its place. Much in this operation depends on the firmness with which the assistant keeps the shoulder-blade in its place, for if that is not done the operator will, of necessity, pull both arm and shoulder, and be no nearer the end for which he manipulates.

REDUCING A DISLOCATED SHOULDER.

As soon as the arm is reduced, a sling must be made with a handkerchief, and the folded arm carried in it for not less than a fortnight, to allow the muscles and tendons to recover their tone.

If the reduction has been attended with much pain, and there is any swelling or tenderness of the joint, it will be well to foment the shoulder with warm bran poultices.

Ball and Socket Joints.—Under this head we shall embrace the shoulder-bone, fingers, hip, toes, the lower jaw, and collar-bone.

The *treatment* in all cases of dislocation is so nearly alike, that it may safely be generalized, except in a few instances, which will be specified in their proper place.

The first general rule to be remembered is, that all dislocations should be reduced *as quickly as possible after they occur*, as what with the internal laceration of ligaments, capsules, and tendons, and the pressure established on the vessels by the displaced head of the bone, severe swelling almost immediately takes place, which every hour augmenting, not only adds greatly to the suffering of the patient, but materially increases the difficulty of the reduction when it is performed.

In long-standing cases, or where some time has passed since the dislocation, the muscles become so resistant that even the power of the pulley fails to overcome their opposition. In such cases, it is found necessary to bleed the patient in an *upright* position, and by a large opening, so as to produce sudden sickness or fainting, and so relax the muscular tension, and enable the reduction to be effected. When bleeding is inadmissible, a nauseating dose of tartar emetic or ipecacuanha must be given to produce the same relaxing effect; or where these means cannot be carried out, an injection of tobacco must be employed instead, and immediate advantage taken of the consequent languor to reduce the dislocation.

Dislocation of the Wrist and Fingers.—The wrist is either dislocated upward or downward. The mode of reducing such an accident is for one person to grasp the arm with both hands, while the surgeon, making extension with the hand, uses either his thumbs or fingers to depress or elevate the wrist at the proper moment. A bandage is then to be passed partly over the hand and wrist, to support the joint, which will require some time to recover its usual strength.

The fingers and thumbs are, in general, easily reduced by a little extension. When, however, the muscles are strong, it may be necessary to take a piece of firm tape, on which a clove hitch having been made, is drawn tight on the next joint, and while one person holds the hand, the other makes extension by the tape, till the reduction is effected.

Dislocation of the Hip Joint, or Thigh.—Of all the dislocations to which the body is liable, this is unquestionably the most serious in its consequences, and at the same time the most difficult to reduce. The ligaments placed by nature around it for a protection are so numerous, the muscles of the hip so short and strong, that, all combined, the difficulty experienced in overcoming the natural resistance of so many powerful levers makes the reduction of this accident a task of extreme difficulty.

Fortunately, the strong guards placed around this articulation protect it, in a great measure, from accidents; still, the cases of such a dislocation are by no means rare, and may occur at all ages and among either sex, though those who most frequently suffer from such a misfortune are the young and the old. Among children and infants, unfortunately, it is more frequent than is generally supposed. Rough or careless nursemaids not unfrequently drop the children entrusted to them, or allow them to fall, and, not seeing any immediate injury, keep the fact from the mother, who, perhaps, only weeks after, discovers something amiss in her child by its crying when washed, or by its incapacity to walk, but, ignorant of the cause, trusts to rest or time to effect a cure, till, too late, she discovers her child to be a cripple, and permanently deformed by a shortened leg.

SHORTENING OF THE LEG IN DISLOCATED HIP.

The falling over a piece of timber, or a very trifling obstruction, is sufficient to lead, either in childhood or age, to this misfortune. Old people are liable to this accident from the relaxed state of the tendons and muscles only it is very often complicated, in their case, with fracture of the neck of the thigh bone, making, in many instances, a hopeless accident. The symptoms, as already stated, are a shortening of the limb, with the knee standing forward, turned outward, or resting on the opposite thigh, and the toes either touching the ground, or pressing on the instep of the other foot.

Being a ball and socket joint, the first idea would be that this dislocation might be reduced as easily as that of the shoulder, by making a fulcrum of the heel. But, setting aside sex, the extreme delicacy

of the parts renders, except in the case of youths, such a mode seldom admissible. In such cases as have been mentioned, however, the method often succeeds. The mode of procedure is as follows: The patient being placed on his back upon a mattress, a sheet passed in a broad fold between the legs and carried obliquely below and above the body, is fastened near the head, either to the foot of a large bed, a staple, or some other firm purchase. A towel is then passed around the thigh above the knee, over which a jack-towel is then passed with a clove hitch. This the surgeon extends by throwing the other end over his shoulders, first placing his heel in the groin, and grasping the limb, guides it with his hand as he makes extension, till it springs into the socket. In strong and adult persons, however, this plan seldom succeeds, and the pulley must be resorted to. When this is the case, it is customary to pass another folded sheet from the opposite side across the body, and make its ends secure like the former, so as to keep the patient perfectly fixed. To the jack-towel attached to the knee, the line from a double block pulley is then fastened, the pulley being made fast to some resisting object, or a staple, on a line with the floor. The surgeon now takes his place by his patient, and grasps the thigh to guide it, as an assistant, or two if necessary, with slow and steady pulling extend the limb, till the surgeon, having brought the head to its natural position, gives the word for a trifling yield, when, if rightly placed, the bone with a loud report sinks into its socket. It is in the reduction of such dislocations as these, occurring in strong muscular men, when no amount of straining can overcome the resistance of the muscles, that the bleeding, tartar emetic, and such relaxing means, already mentioned, must be adopted before the patient is unbound or left.

After so severe an accident, it will be necessary to enjoin some days' total rest before exerting the limb by the slightest exercise.

Dislocation of the Ankle and Toes.—The accident to the foot, like that to the hand, is either backward or forward. As in that case, the leg must be firmly held by one, while another extends the foot in a line with the leg till the proper moment arrives, when the foot is to be pushed up or back to meet the bones of the leg. A bandage, as in the case of the wrist, must be placed around to support this injury. It not unfrequently occurs with dislocation of the foot, that there is a fracture of the upper portion of the *fibula*, or small bone of the leg. In such a case, the fracture must be attended to *after* the reduction of the joint. The displacement of the toes must be treated in the same manner as that of the fingers.

Dislocation of the Jaw.—This is a very alarming accident to see, but by no means difficult to cure; for as the person finds himself in a moment with an immovable jaw, and incapable of speech, with a mouth wide open, he can only by motions indicate what has happened. This accident is most frequently caused by a fit of gaping, though a blow on the side of the face when the mouth is open, or a fall, have caused it. The treatment consists in seating the individual in a chair, when the surgeon, having enveloped both his thumbs in strips of lint, places a thumb on the back of the lower jaw, one on each side, and while his fingers grasp the chin, he presses firmly downward on the teeth as he brings the jaw a little forward and upward with his fingers, till the heads spring into their sockets. So rapidly and so forcibly does the jaw close, that unless he has well protected his thumbs, the operator may expect a very severe bite.

REDUCING A DISLOCATED JAW.

The collar-bone, and also the ribs, are sometimes dislocated, but as both are much more frequently fractured, and nearly the same treatment is adopted in both cases, we shall defer a description of such accidents till we come to "Fractures."

The Dislocation of Hinge-like Joints.—Foremost among this order of articulations is the elbow joint, and next in importance that of the knee; and though these are sometimes by a violent force dislocated, fortunately they are so powerfully bound around and protected by ligaments, that such accidents are very rare, and only from a very high fall on the feet, by a railway collision

or a restive horse dashing its rider against a wall, or some other extremely forcible injury, can a dislocation of such firmly-locked articulations be effected.

The previous advice given in respect of the treatment of dislocations generally should be borne in mind in the accidents we are about to refer to with even more than ordinary attention. When once satisfied of the nature of the injury, not an unnecessary moment should be lost before proceeding to the reduction of the mischief, as every minute's delay not only adds greatly to the suffering of the patient, but by the rapid swelling that succeeds complicates the treatment.

Dislocation of the Elbow.—As three bones enter into the formation of this joint, it admits of several varieties of luxation, both backward and forward—that is, the joint of the forearm may be forced behind the bone of the arm, or it may be driven up in front of it; again, the two bones of the forearm may be dislocated from each other in several ways. The two most general forms, however, are the backward and forward dislocation.

There are three modes of effecting the reduction of such accidents, which we give in their proper order.

1st. The following treatment will generally succeed with youths and children: The patient is to be placed in a chair, and while one assistant grasps the arm, and by counter-extension keeps the limb stationary, another, taking the forearm by the wrist, gradually extends the limb, as the surgeon, seated by the patient, grasps the member above or below the elbow, and by means of a steady pressure of either his thumbs or fingers backward or forward, as the nature of the accident may demand, forces the bones into their proper place. When the muscular power resists such force, a sheet must be passed across the patient's chest, and made fast to the wall; a towel is then to be wrapped around the wrist, and the line of a pulley attached to the hitch on the towel, and while the assistant at the arm and the surgeon at the elbow, as in the former case, repeat their efforts, the other assistant, by means of the longer lever of the pulley, makes a gradual and steady extension.

2d. The patient and surgeon being seated on separate chairs, the latter takes the limb in his hands, and, steadying his knee on the style of his chair, places the hollow of the arm, or the side of it, against the point of his knee, and, bending round the arm, endeavors to force the bones back to their natural position, the knee-cap of the operator acting as a *fulcrum*, and often effecting what a direct strain on the muscles could not perform—a reduction.

3d. This method is only a modification of the second, and consists in seating the patient on the foot of a bed, and, making a fulcrum of the bed-post, bending the dislocated limb upon it; the surgeon using his hands, as an assistant bends the arm, to aid the action by the pressure of his fingers.

Some surgeons have succeeded in reducing the injury by using the round arm of an easy-chair instead of the knee or bed-post.

Great care must be taken after the reduction, not only in keeping the arm in a sling for some weeks, but in applying warm fomentations around the joint, or lotions of sugar of lead and vinegar, made warm, to reduce the inflammatory action which is sure to supervene.

Dislocation of the Knee Joint and Knee Cap.—Like the elbow, the knee may also be displaced backward and forward, and also inwardly and outwardly, as well as having the bones of the leg themselves separated from each other. Considerable force is often necessary to reduce a luxation of the knee joint, and overcome the muscular resistance; but in consequence of the large articulating surfaces of this joint, the bones, when once brought down, glide easily into their places.

The mode of treatment is much the same as that already described. A firm counter-extension, by means of a sheet, must be made by the thigh, and extension then established from the leg, which must be kept partially bent during the operation; a towel, secured in the ordinary manner by a clove hitch knot, is in the first instance to be adopted for making the extension; the surgeon keeping his place by the knee, to assist, with hands and fingers, the operation. When greater power is required, the towel must be joined to the pulley, and extension again made till the reduction is effected.

The KNEE-CAP, or PATELLA, is very liable to be displaced, either outward, inward, or upward. When this little flat bone is forcibly driven from its place, it is generally pushed over the protuberances of the bones, when it lies as it were in a hollow, from which it requires some art to extricate it. This is generally effected by pressing suddenly on the edge of the bone farthest from the joint, by which means the other end is canted up over the bony enlargement, when the contractile power of the muscles at once draws it into its place over the joint. When this cannot be effected, the leg of the patient, who has been placed on his back, is to be raised and bent as far as possible toward his face. It is then to be suddenly flexed or bent back on the thigh till the heel touches the hip. The surgeon, as he does so, with one hand

presses, as before explained, on the rim of the bone, and quickly opening the leg again, the patella glides into its proper situation.

The after treatment in both of these dislocations requires rest, warm applications to soothe the joint, if necessary, and evaporating lotions if there is much inflammation or heat in the part, and a bandage or elastic knee-cap support to the limb, which should be worn for some months.

EMERGENCIES—Recovery of Persons apparently Drowned, or Dead.—Lose no time. Avoid all rough usage. Never hold the body up by the feet. Nor roll the body on casks. Nor rub the body with salt and spirits. Nor inject tobacco smoke, or infusion of tobacco.

Restorative Means, if apparently Drowned.—Send quickly for medical assistance; but do not delay the following means:

Convey the body CAREFULLY, with the head and shoulders supported in a raised condition to the nearest house.

Strip the body and rub it dry; then wrap it in hot blankets, and place it in a warm bed in a warm chamber.

Wipe and clean the mouth and nostrils.

In order to restore the natural warmth of the body:

Move a heated covered warming pan over the back and spine. Put bladders, or bottles of hot water, or heated bricks, to the pit of the stomach, the armpits, between the thighs, and to the soles of the feet Foment the body with hot flannels; but, if possible, immerse the body in a warm bath as hot as the hand can bear without pain. Rub the body briskly with the hand; but do not suspend the use of the other means at the same time.

To restore breathing, introduce the pipe of a common bellows into one nostril, carefully closing the other and the mouth; at the same time drawing downwards, and pushing gently backwards, the upper part of the wind-pipe, to allow the free admission of air; blow the bellows gently, in order to inflate the lungs, till the breast be a little raised: the mouth and nostrils should then be set free, and a moderate pressure made with the hand upon the chest. Repeat this process till life appears.

Electricity to be employed early by a medical assistant.

Inject into the stomach, by means of an elastic tube and syringe, half a pint of warm brandy, or wine and water.

Apply sal-volatile to the nostrils.

If apparently Dead from Intense Cold.—Rub the body with ice, snow, or cold water. Restore warmth by slow degrees; and, after some time, if necessary, employ the means recommended for the apparently drowned. It is *highly dangerous* to apply heat too early.

If apparently Dead from Hanging.—In addition to the means recommended for the apparently drowned, *bleeding* should early be employed by a medical assistant.

If apparently Dead from Noxious Vapors, Lightning, etc.—Remove the body into a cold fresh air. Dash cold water on the neck, face, and breast frequently. If the body be cold, apply warmth, as recommended for the apparently drowned. Use the means for inflating the lungs as directed above. Let electricity (particularly in accidents from lightning) be early employed by a medical assistant.

If apparently Dead from Intoxication.—Lay the body on a bed, with the head raised; remove the neckcloth and loosen the clothes. Obtain instantly medical assistance, in the meantime apply cloths soaked in cold water to the head, and bottles of hot water, or hot bricks, to the calves of the legs and to the feet.

General Observations.—On restoration to life, a tea-spoon of warm water should be given; and then, if the power of swallowing be returned, small quantities of weak brandy and water, warm; the

patient should be kept in bed, and a disposition to sleep encouraged, except in cases of apoplexy and intoxication. Great care is requisite to maintain the restored vital actions, and to prevent undue excitement. The treatment is to be presevered in for *three or four hours*. It is an erroneous opinion that persons are irrecoverable because life does not soon make its appearance.

POISONS—Antidotes to.—The treatment of cases of poisoning must vary with the nature of the poison, the quantity taken, and the peculiarities of the individual. In almost all cases, copious vomiting should be excited as soon as possible by tickling the throat, and by emetics, such especially as sulphate of zinc, or ipecacuanha with emetic tartar; the former, however, in ten-grain doses dissolved in a little warm water, and repeated every ten or fifteen minutes till it freely operates, is generally most effectual. The use of the stomach-pump should also be resorted to. The vomiting should be kept up, and the stomach washed out with bland albuminous or mucilaginous fluids, such as milk, flour and water, or thin paste, etc.; sometimes sugar and water.

The following is a short summary of the antidotes resorted to in reference to particular poisons. They should, of course be administered as speedily as possible.

Emetic in Cases of Poison.—Two table-spoons of made mustard in a pint of warm water; if taken immediately, this is a certain remedy, instantly producing violent vomiting. Also administer large draughts of warm milk or water, mixed with oil, melted butter, or lard.

Arsenic.—Lime water, chalk and water, and the hydrated sesquioxide of iron, have each been strongly recommended; the last is decidedly the best.

For Mineral Acids, or Acetic and Oxalic Acids.—For this form of poison, give quickly large draughts of chalk, whiting, magnesia, soap and water, about as thick as cream; followed by albuminous diluents, such as milk, and white of egg mixed with water. Or, if these cannot be procurred at once, warm water; and promote vomiting by tickling the throat.

Alkalies, Soda, Potash, Ammonia, etc.—Vinegar, or any mild acid and water, or even very dilute mineral acids, such as water acidulated by them; olive oil, almond oil.

Corrosive Sublimate.—White of egg and water; milk and cream; decoction of cinchona; infusion of galls.

Sulphate of Copper and other Poisons.—Sugar and water; white of egg and water.

Antimonial Poisons.—Warm milk, gruel, and barley water; infusion of galls; decoction of cinchona.

Nitrate of Silver.—Copious draughts of warm salt and water.

Sulphate of Zinc.—Solution of carbonate of soda in water, with milk, and mucilaginous or farinaceous liquids.

Acetate of Lead.—Emetics, solution of sulphate of soda in water, milk, white of egg and water.

Opium and its Preparations.—Emetics, strong coffee: dashing cold water upon the face and breast; preventing torpor by forced exercise.

Prussic Acid.—Ammoniacal stimulants cautiously applied to the nose; ammonia, or sal-volatile in repeated small doses of solution of chlorine in water; small doses of chloride of lime in water.

Strychnia and Vegetable Alkaloids.—Infusion of gall nuts; decoction of cinchona; emetics. See "Accidents."

RULES FOR THE PRESERVATION OF HEALTH.

BY THE PUBLISHER.

ABSTINENCE.—Disease may oft be cured by abstinence from all food, especially if the disorders have been procured by luxurious living and repletion. The latter overtaxes nature, and it rebels against such treatment. Indigestion, giddiness, headache, mental depression, etc., are often the effects of greediness in meat and drink. Omitting one, two, or three meals, allows the system to rest, to regain strength, and allows the clogged organs to dispose of their burdens. The practice of drug taking *to cleanse the stomach*, though it may give the needed relief, always weakens the system, while *abstinence* secures the good result, and yet does no injury.

Said a young gentleman to a distinguished physician of Philadelphia,—"Doctor, what do you do for yourself when you have headache or other slight attack?" "Go without my dinner," was the reply. "Well, if that will not do, how do you proceed then?" "Go without my supper," was the answer. "But if that does not cure you, what then?" "Go without my breakfast. We physicians seldom take medicines ourselves, or use them in our families, for *we* know that *starving* is better, but we cannot make our patients believe it."

Hippocrates (the father of medicine) said wisely, that if a man eats sparingly and drinks little, he is nearly certain of bringing no disease upon himself, and that a *moderate* supply of food nourishes the body best. The quantity of food which nature really requires for her support is small, and he that eats and drinks moderately at each meal stands fair to enjoy sprightliness, vivacity, and freedom of spirits Bodies governed by temperance and regularity are rarely hurt by melancholy, or any other affection of the mind. To have a clear head we must have a clean stomach; for this is the grand reservoir in which the food is first deposited, and thence its nutritive power is distributed throughout all parts of the body.

BATHING.—If to preserve health be to save medical expenses, without even reckoning upon time or comfort, there is no part of the household arrangement so important to the domestic economist as cheap convenience for personal ablution, For this purpose baths upon a large and expensive scale are by no means necessary; but though temporary or tin baths may be extremely useful upon pressing occasions, it will be found to be finally as cheap, and much more readily convenient, to have a permanent bath constructed, which may be done in any dwelling-house of moderate size, without interfering with other general purposes. As the object of these remarks is not to present essays, but merely useful economic hints, it is unnecessary to expatiate upon the architectural arrangement of the bath, or, more properly speaking, the bathing-place, which may be fitted up for the most retired establishment, differing in size and shape agreeably to the spare room that may be appropriated to it, and serving to exercise both the fancy and the judgment in its preparation. Nor is it particularly necessary to notice the salubrious effects resulting from the bath, be-

yond the two points of its being so conducive both to health and cleanliness, in keeping up a free circulation of the blood, without any violent muscular exertion, thereby really affording a saving of strength, and producing its effects without any expense either to the body or to the purse.

Whoever fits up a bath in a house already built must be guided by circumstances; but it will always be proper to place it as near the kitchen as possible, because from thence it may be heated, or at least have its temperature preserved, by means of hot air throught tubes, or by steam prepared by the culinary fire, without interfering with its ordinary uses.

A small boiler may be erected at a very little expense in the bath-room, where circumstances do not permit these arrangements. Whenever a bath is wanted at a short warning, to boil the water necessary will always be the shortest mode; but where it is in general daily use, the heating of the water by steam will be found the cheapest and most convenient method.

As a guide for practice, we may observe that it has been proved by experiment that a bath with five feet of water at the freezing point, may be raised to the temperature of blood heat, or 96 degrees, by 304 gallons of water turned into steam, at an expense of 50 lbs. of coal; but if the door be kept closed, it will not lose above four degrees of temperature in twenty-four hours, by a daily supply of 3 lbs. of coal. This is upon a scale of a bath of 5,000 gallons of water.

CLEANLINESS.—The want of cleanliness is a fault which admits of no excuse. Where water can be had for nothing, it is surely in the power of every person to be clean.

The discharge from our bodies by perspiration renders frequent changes of apparel necessary.

Change of apparel greatly promotes the secretion from the skin, so necessary to health.

When that matter which ought to be carried off by perspiration, is either retained in the body, or re-absorbed in dirty clothes, it is apt to occasion fevers and other diseases.

Most diseases of the skin proceed from want of cleanliness. These indeed may be caught by infection, but they will seldom continue long where cleanliness prevails.

To the same cause must we impute the various kinds of vermin that infest the human body, houses, etc. These may generally be banished by cleanliness alone.

Perhaps the intention of nature in permitting such vermin to anoy mankind, is to induce them to the practice of this virtue.

One common cause of putrid and malignant fevers is the want of cleanliness.

These fevers commonly begin among the inhabitants of close, dirty houses, who breathe bad air, take little exercise, eat unwholesome food, and wear dirty clothes. There the infection is generally hatched, which spreads far and wide, to the destruction of many. Hence, cleanliness may be considered as an object of public attention. It is not sufficient that I be clean myself, while the want of it in my neighbors affects his health as well as my own.

If dirty people cannot be removed as a common nuisance, they ought at least to be avoided as infectious. All who regard their health should keep at a distance, even from their habitations. In places where great numbers of people are collected, cleanliness becomes of the utmost importance.

It is well known that infectious diseases are caused by tainted air Everything, therefore, which tends to pollute the air, or spread the infection, ought, with the utmost care, to be avoided.

For this reason, in great towns, no filth of any kind should be permitted to lie upon the streets. We are sorry to say that the importance of general cleanliness in this respect does by no means seem to be sufficiently understood.

Water, indeed, is easily obtained in this country; therefore, no excuse for uncleanliness.

Nothing can be more agreeable to the senses, more to the honor of the inhabitants, or conducive to their health, than a clean town; nor does anything impress a stranger quicker with a disrespectful idea of any people than its opposite.

It is remarkable that, in most eastern countries, cleanliness makes a great part of their religion. The Mahometan, as well as the Jewish religion, enjoins various bathings, washings, and purifications. No doubt these were designed to represent inward purity; but they are at the same time calculated for the preservation of health.

However whimsical these washings may appear to some, few things would seem more to prevent diseases than a proper attention to many of them.

Were every person, for example, after handling a dead body, visiting the sick, etc., to wash before he went into company, or sat down to meat, he would run less hazard either of catching the infection himself, or communicating it to others.

Frequent washing not only removes the filth which adheres to the skin, but likewise promotes the perspiration, braces the body, and enlivens the spirits.

Even washing the feet tends greatly to preserve health. The perspiration and dirt with which these parts are frequently covered, cannot fail to obstruct their pores. This piece of cleanliness would often prevent colds and fevers.

Were people to bathe their feet and hands in warm water at night after being exposed to cold or wet through the day, they would seldom experience any of the effects from these causes which often prove fatal.

In places where great numbers of sick people are kept, cleanliness ought most religiously to be observed. The very smell in such places is often sufficient to make one sick. It is easy to imagine what effect that is likely to have upon the diseased.

A person in health has a greater chance to become sick, than a sick person has to get well, in an hospital or infirmary where cleanliness is neglected.

The brutes themselves set us an example of cleanliness. Most of them seem uneasy, and thrive ill, if they be not kept clean. A horse that is kept thoroughly clean will thrive better on a smaller quantity of food, than with a greater where cleanliness is neglected.

Even our own feelings are a sufficient proof of the necessity of cleanliness. How refreshed, how cheerful and agreeable does one feel on being washed and dressed; especially when these have long been neglected.

Superior cleanliness sooner attracts our regard than even finery itself, and often gains esteem where the other fails.

Influence of Cleanliness.—"I have more than once expressed my conviction that the humanizing influence of habits of cleanliness, and of those decent observations which imply self-respect—the best, indeed

the only foundation of respect for others—has never been sufficiently acted on. A clean, fresh, and well ordered house exercises over its inmates a moral no less than a physical influence, and has a direct tendency to make the members of a family sober, peaceable, and considerate of the feelings and happiness of each other; nor is it difficult to trace a connection between habitual feelings of this sort and the formation of habits of respect for property, for the laws in general, and even for those higher duties and obligations the observance of which no laws can enforce."—*Dr. Southwood Smith.*

EXERCISE.—Exercise in the open air is of the first importance to the human frame, yet how many are in a manner deprived of it by their own want of management of their time! Females with slender means are for the most part destined to indoor occupations, and have but little time alloted them for taking the air, and that little time is generally sadly encroached upon by the ceremony of dressing to go out. It may appear a simple suggestion, but experience only will show how much time might be redeemed by habits of regularity; such as putting the shawls, cloaks, gloves, shoes, clogs, etc., etc., or whatever is intended to be worn, in readiness, instead of having to search one drawer, then another, for possibly a glove or collar—wait for shoes being cleaned, etc.—and this when (probably) the out-going persons have to return to their employment at a given time. Whereas, if all were in readiness, the preparations might be accomplished in a few minutes, the walk not being curtailed by unnecessary delays.

Three principal points in the manner of taking exercise are necessary to be attended to: 1. The kind of exercise. 2. The proper time for exercise. 3. The duration of it. With respect to the kind of exercise, the various species of it may be divided into active and passive. Among the first, which admit of being considerably diversified, may be enumerated walking, running, leaping, swimming, riding, fencing, the military exercise, different kinds of athletic games, etc. Among the latter, or passive kinds of exercise, may be comprised riding in a carriage, sailing, friction, swinging, etc.

Active exercises are more beneficial to youth, to the middle-aged, to the robust in general, and particularly to the corpulent and the plethoric.

Passive kinds of exercise, on the contrary, are better calculated for children; old, dry, and emaciated persons of a delicate and debilitated constitution; and particularly for the asthmatic and consumptive.

The time at which exercise is most proper depends on such a variety of concurrent circumstances, that it does not admit of being regulated by any general rules, and must therefore be collected from the observations made on the effects of air, food, drink, etc.

With respect to the duration of exercise, there are other particulars, relative to a greater or less degree of fatigue attending the different species, and utility of it in certain states of the mind and body, which must determine this consideration as well as the preceding.

That exercise is to be preferred which, with a view to brace and strengthen the body, we are most accustomed to. Any unusual one may be attended with a contrary effect.

Exercise should be begun and finished gradually, never abruptly.

Exercise in the open air has many advantages over that used within doors.

To continue exercise until a profuse perspiration or a great degree of weariness takes place, is far from being wholesome.

In the forenoon, when the stomach is not too much distended,

muscular motion is both agreeable and healthful; it strengthens digestion, and heats the body less than with a full stomach; and a good appetite after it is a proof that it has not been carried to excess.

But at the same time it should be understood, that it is not advisable to take violent exercise immediately before a meal, as digestion might thereby be retarded.

Neither should we sit down to a substantial dinner or supper immediately on returning from a fatiguing walk, at a time when the blood is heated, and the body in a state of perspiration from previous exertion, as the worst consequences may arise, especially where cooling dishes, salad, or a glass of cold drink is begun with.

Exercise is always hurtful after meals, from its impeding digestion, by propelling those fluids too much towards the surface of the body which are designed for the solution of the food in the stomach.

WALKING.—To walk gracefully the body must be erect, but not stiff, and the head held up in such a posture that the eyes are directed forward. The tendency of untaught walkers is to look towards the ground near the feet; and some persons appear always as if admiring their shoe-ties. The eyes should not be thus cast downward, neither should the chest bend forward to throw out the back, making what are termed round shoulders; on the contrary, the whole person must hold itself up, as if not afraid to look the world in the face, and the chest by all means be allowed to expand. At the same time, everything like strutting or pomposity must be carefully avoided. An easy, firm, and erect posture is alone desirable. In walking, it is necessary to bear in mind that the locomotion is to be entirely performed by the legs. Awkward persons rock from side to side, helping forward each leg alternately by advancing the haunches. This is not only ungraceful but fatiguing. Let the legs alone advance, bearing up the body.

UTILITY OF SINGING.—It is asserted, and we believe with some truth, that singing is a corrective of the too common tendency to pulmonic complaints. Dr. Rush, an eminent physician, observes on this subject: "The Germans are seldom afflicted with consumption; and this, I believe, is in part occasioned by the strength which their lungs acquire by exercising them in vocal music, for this constitutes an essential branch of their education. The music master of an academy has furnished me with a remark still more in favor of this opinion. He informed me that he had known several instances of persons who were strongly disposed to consumption, who were restored to health by the exercise of their lungs in singing."

THE WEATHER AND THE BLOOD.—In dry, sultry weather the heat ought to be counteracted by means of a cooling diet. To this purpose cucumbers, melons, and juicy fruits are subservient. We ought to give the preference to alimentary substances as lead to contract the juices which are too much expanded by the heat, and this property is possessed by all acid food and drink. To this class belong all sorts of salad, lemons, oranges, pomegranates sliced and sprinkled with sugar, for the acid of this fruit is not so apt to derange the stomach as that of lemons; also cherries and strawberries, curds turned with lemon acid or cream-of-tartar; cream-of-tartar dissolved in water; lemonade, and Rhenish or Moselle wine mixed with water.

HOW TO GET SLEEP.—How to get sleep is to many persons a matter of high importance. Nervous persons who are troubled with wakefulness and excitability, usually have a strong tendency of blood on the brain, with cold extremities. The pressure of the blood on the brain keeps it in a stimulated or wakeful state, and the pulsations in

the head are often painful. Let such rise and chafe the body and extremities with a brush or towel, or rub smartly with the hands, to promote circulation, and withdraw the excessive amount of blood from the brain, and they will fall asleep in a few moments. A cold bath, or a sponge bath and rubbing, or a good run, or a rapid walk in the open air, or going up and down stairs a few times just before retiring, will aid in equalizing circulation and promoting sleep. These rules are simple, and easy of application in castle or cabin, and may minister to the comfort of thousands who would freely expend money for an anodyne to promote "Nature's sweet restorer, balmy sleep!"

EARLY RISING.—Dr. Wilson Philip, in his "Treatise on Indigestion," says: "Although it is of consequence to the debilitated to go early to bed, there are few things more hurtful to them than remaining in it too long. Getting up an hour or two earlier often gives a degree of vigor which nothing else can procure. For those who are not much debilitated, and sleep well, the best rule is to get out of bed soon after waking in the morning. This at first may appear too early, for the debilitated require more sleep than the healthy; but rising early will gradually prolong the sleep on the succeeding night, till the quantity the patient enjoys is equal to his demand for it. Lying late is not only hurtful, by the relaxation it occasions, but also by occupying that part of the day at which exercise is most beneficial."

APPETITE.—Appetite is frequently lost through excessive use of stimulants, food taken too hot, sedentary occupation, costiveness, liver disorder, and want of change of air. The first endeavor should be to ascertain and remove the cause. Change of diet and change of air will frequently be found more beneficial than medicines.

TEMPERANCE.—"If," observes a writer, "men lived uniformly in a healthy climate, were possessed of strong and vigorous frames, were descended from healthy parents, were educated in a hardy and active manner, were possessed of excellent natural dispositions, were placed in comfortable situations in life, were engaged only in healthy occupations, were happily connected in marriage, and kept their passions in due subjection, there would be little occasion for medical rules." All this is very excellent and desirable; but, unfortunately for mankind, unattainable.

Man must be something more than man to be able to connect the different links of this harmonious chain—to consolidate this *summum bonum* of earthly felicity into one uninterrupted whole; for, independent of all regularity or irregularity of diet, passions, and other sublunary circumstances, contingencies, and connections, relative or absolute, thousands are visited by disease and precipitated into the grave, independent of accident, to whom no particular vice could attach, and with whom the appetite never overstepped the boundaries of temperance. Do we not hear almost daily of instances of men living near to and even upwards of a century? We cannot account for this either; because of such men we know but few who have lived otherwise than the world around them; and we have known many who have lived in habitual intemperance for forty or fifty years, without interruption and with little apparent inconvenience.

The assertion has been made by those who have attained a great age (Parr, and Henry Jenkins, for instance), that they adopted no particular arts for the preservation of their health, consequently, it might be inferred that the duration of life has no dependence on manners or customs, or the qualities of particular food. This, however, is an error of no common magnitude.

Laborers, and other hard working people, more especially those whose occupations require them to be much in the open air, may be considered as following a regulated system of moderation; and hence the higher degree of health which prevails among them and their families. They also observe rules; and those which it is said were recommended by Old Parr are remarkable for good sense; namely, "Keep your head cool by temperance, your feet warm by exercise; rise early, and go soon to bed; and if you are inclined to get fat, keep your eyes open and your mouth shut,"—in other words sleep moderately and be abstemious in diet;—excellent admonitions, more especially to those inclined to corpulency.

The advantages to be derived from a regular mode of living, with a view to the preservation of health and life, are nowhere better exemplified than in the precepts and practice of Plutarch, whose rules for this purpose are excellent; and by observing them himself, he maintained his bodily strength and mental faculties unimpaired to a very advanced age. Galen is a still stronger proof of the advantages of a regular plan, by means of which he reached the great age of 140 years, without ever having experienced disease. His advice to the readers of his "Treatise on Health" is as follows: "I beseech all persons who read this work not to degrade themselves to a level with the brutes, or the rabble, by gratifying their sloth, or by eating and drinking promiscuously whatever pleases their palates, or by indulging their appetites of every kind. But whether they understand physic or not, let them consult their reason, and observe what agrees, and what does not agree with them, that, like wise men, they may adhere to the use of such things as conduce to their health, and forbear everything which by their own experience, they find to do them hurt; and let them be assured that, by a diligent observation and practice of this rule, they may enjoy a good share of health, and seldom stand in need of physic or physician."

HEALTH IN YOUTH.—Late hours, irregular habits, and want of attention to diet, are common errors with most young men, and these gradually, but at first imperceptibly, undermine the health, and lay the foundation for various forms of disease in after life. It is very difficult to make young persons comprehend this. They frequently sit up as late as twelve, one, or two o'clock, without experiencing any ill effects; they go without a meal to-day, and to-morrow eat to repletion, with only temporary inconvenience. One night they will sleep three or four hours, and the next nine or ten; or one night, in their eagerness to get away into some agreeable company, they will take no food at all, and the next, perhaps, will eat a hearty supper, and go to bed upon it. These, with various other irregularities, are common to the majority of young men, and are, as just stated, the cause of much bad health in mature life. Indeed, nearly all the shattered constitutions with which too many are cursed, are the result of a disregard to the plainest precepts of health in early life.

SPECIAL RULES FOR THE PREVENTION OF CHOLERA.—We urge the necessity, in all cases of cholera, of an instant recourse to medical aid, and also under every form and variety of indisposition; for all disorders are found to merge in the dominant disease.

Let immediate relief be sought under disorder of the bowels especially, however slight. The invasion of cholera may thus be readily prevented.

Let every impurity, animal and vegetable, be quickly removed to a distance from the habitation, such as slaughter-houses, pig-sties, sink pools, necessaries, and all other domestic nuisances.

Let all uncovered drains be carefully and frequently cleansed.

Let the grounds in and around the habitation be drained, so as effectually to carry off moisture of every kind.

Let all partitions be removed from within and without habitations, which unnecessarily impede ventilation.

Let every room be daily thrown open for the admission of fresh air; this should be done about noon, when the atmosphere is most likely to be dry.

Let dry scrubbing be used in domestic cleansing in place of water cleansing.

Let excessive fatigue, and exposure to damp and cold, especially during the night, be avoided.

Let the use of cold drinks and acid liquors, especially under fatigue, be avoided, or when the body is heated.

Let the use of cold acid fruits and vegetables be avoided.

Let excess in the use of ardent and fermented liquors and tobacco be avoided.

Let a poor diet, and the use of impure water in cooking or for drinking, be avoided.

Let the wearing of wet and insufficient clothes be avoided.

Let a flannel or woolen belt be worn round the belly.

Let personal cleanliness be carefully observed.

Let every cause tending to depress the moral and physical energies be carefully avoided. Let exposure to extremes of heat and cold be avoided.

Let crowding of persons within houses and apartments be avoided.

Let sleeping in low or damp rooms be avoided.

Let fires be kept up during the night in sleeping or adjoining apartments, the night being the period of most danger from attack, especially under exposure to cold or damp.

Let all bedding and clothing be daily exposed during winter and spring to the fire, and in summer to the heat of the sun.

Let the dead be buried in places remote from the habitations of the living. By the timely adoption of simple means such as these, cholera, or other epidemic, will be made to lose its venom.

RULES FOR THE PRESERVATION OF HEALTH.—Pure atmospheric air is composed of nitrogen, oxygen, and a *very* small proportion carbonic acid gas. Air once breathed has lost the chief part of its oxygen, and acquired a proportionate increase of carbonic acid gas. *Therefore*, health requires that we breathe the same air once only.

The solid part of our bodies is continually wasting, and requires to be repaired by fresh substances. *Therefore*, food, which is to repair the loss, should be taken with due regard to the exercise and waste of the body.

The fluid part of our bodies also wastes constantly; there is but one fluid in animals, which is water, *Therefore*, water only is necessary, and no artifice can produce a better drink.

The fluid of our bodies is to the solid in proportion as nine to one. *Therefore*, a like proportion should prevail in the total amount of food taken

Light exercises an important influence upon the growth and vigor of animals and plants. *Therefore*, our dwellings should freely admit the solar rays.

Decomposing animal and vegetable substances yield various noxious gases, which enter the lungs and corrupt the blood. *Therefore*, all impurities should be kept away from our abodes, and every precaution be observed to secure a pure atmosphere.

Warmth is essential to all the bodily functions. *Therefore*, an equal bodily temperature should be maintained by exercise, by clothing or by fire.

Exercise warms, invigorates, and purifies the body; clothing preserves the warmth the body generates; fire imparts warmth externally. *Therefore*, to obtain and preserve warmth, exercise and clothing are preferable to fire.

Fire consumes the oxygen of the air, and produces noxious gases. *Therefore*, the air is less pure in the presence of candles, gas, or coal fire, than otherwise, and the deterioration should be repaired by increased ventilation.

The skin is a highly-organized membrane, full of minute pores, cells, blood-vessels, and nerves; it imbibes moisture or throws it off, according to the state of the atmosphere and the temperature of the body. It also "breathes," as do the lungs (though less actively). All the internal organs sympathize with the skin. *Therefore*, it should be repeatedly cleansed.

Late hours and anxious pursuits exhaust the nervous system, and produce disease and premature death. *Therefore*, the hours of labor and study should be short.

Mental and bodily exercise are equally essential to the general health and happiness. *Therefore*, labor and study should succeed each other.

Man will live most healthily upon simple solids and fluids, of which a sufficient, but temperate quantity should be taken. *Therefore* over-indulgences in strong drinks, tobacco, snuff, opium, and all mere indulgencies, should be avoided.

Sudden alternations of heat and cold are dangerous, (especially to the young and the aged). *Therefore*, clothing, in quantity and quality should be adapted to the alternations of night and day, and of the seasons. *And therefore, also*, drinking cold water when the body is hot, and hot tea and soups when cold, are productive of many evils.

Moderation in eating and drinking, short hours of labor and regularity in exercise, recreation, and rest, cleanliness, equanimity of temper and equality of temperature,—these are the great essentials to that which surpasses all wealth, *health of mind and body*.

Damp Linen.—We know of nothing attended with more serious consequences than the sleeping in damp linen. Persons are frequently assured that the sheets have been at a fire for many hours, but the question is as to what sort of fire, and whether they have been properly turned, so that every part has been exposed to the fire. The fear of creasing the linen, we know, prevents many from unfolding it, so as to be what we consider sufficiently aired; but health is of more importance than appearances; with gentleness there need be no fear of want of neatness.

Health, Preservation of.—It is an old but a very just saying, that no one knows the value of health till they begin to lose it; and it may be affirmed with equal truth, that the moment we become conscious that we have an eye, a stomach, or a heart, or *feel* any part of the silent but wondrous mechanism of which we are composed, disease or injury has invaded that organ or function. Health, then, is the insensible performance of all the operations of the body. Much might be said in this place on the preservation of that inestimable boon, health; but as most persons have an opinion of their own on such a subject, it will be sufficient to specify the most important rules to be observed. As far as external agents are concerned, those absolutely necessary to the preservation of health are,—

A constant and abundant supply of fresh air.

A sufficiency of warm and appropriate clothing; the dress having reference to the season.

An ample supply of wholesome and nutritious food.

A due amount of daily exercise.

Frequent ablutions of the entire body, and generaly cleanliness of the skin.

An adequate proportion of relaxation and amusement.

Early hours, and regularity in the diet.

And, lastly, constant occupation both for the mind and the body.

In addition to these rules, all sudden alternations of temperature should be avoided; the sleeping-room should be large, and well ventilated; exposure to damp and fogs avoided; the mind kept amused and active; the food well masticated and slowly eaten, and the beverage kept as simple and unstimulating as possible. By the adoption of such rules, and paying attention to the first symptoms of local or general indisposition, a person may hope to preserve the blessings of health for the longest possible period.

Method of Ascertaining the State of the Lungs.—Persons desirous of ascertaining the true state of their lungs are directed to draw in as much breath as they conveniently can; they are then to count as far as they are able, in a slow and audible voice, without drawing in more breath. The number of seconds they can continue counting must be carefully observed; in a consumption the time does not exceed ten, and is frequently less than six seconds; in pleurisy and pneumonia it ranges from nine to four seconds. When the lungs are in a sound condition, the time will range as high as from twenty to thirty-five seconds.

Sick Rooms—Cautions in Visiting.—Never enter a sick room in a state of perspiration, for as soon as the body becomes cold, it may absorb the infection or disease. Do not visit a sick person with an empty stomach, as it disposes the system more readily to receive infection. In a sick room, stand where the air passes from the door or window to the bed of the diseased. When poisonous vapor is much diluted with fresh air, it is not noxious. The windows of a sick room, small and confined, should not be closed; if the wind is cold, nearly close the curtains of the bed. Remove all dirty cloths, clothes, and discharges, as soon as possible. Let the visitor have about his person camphor, etc. After leaving an infectious room, a person should continue in the open air some time before he enters his own dwelling.

Use of Fruit.—Instead of standing in any fear of a generous consumption of ripe fruits, we regard them as conducive to health. We have no patience in reading the endless rules to be observed in this particular department of physical comfort. No one ever lived longer or freer from disease, by discarding the fruits of the land in which he finds a home. On the contrary, they are necessary to the preservation of health, and are therefore designed to make their appearance at the very time when the condition of the body, operated upon by deteriorating causes not always understood, requires their renovating influence.

Health, Preservation of.—Adopt the plan of rising early, and never sit up late at night.

Wash the whole body every morning with cold water, by means of a large sponge, and rub it dry with a rough towel, or scrub the whole body for ten or fifteen minutes with flesh brushes.

Those who use cold water regularly, either with a sponge or as a

bath, are able to bear exposure to the weather much better than without its aid.

Drink water generally, and avoid taking spirits, wines, and all fermented liquors.

Sleep in a room that has free access to the open air, and is well ventilated.

Keep the head cool by washing it with cold water if necessary, abate feverish and inflammatory symptoms when they arise, by preserving stillness.

Symptoms of plethora and indigestion may be corrected by eating and drinking less per day for a short time.

Never eat a hearty supper, especially of animal food. Never indulge in luxuries; guard against intemperance; and never sit in a draught, or in wet clothes, nor lie in a damp bed.

Exercise regularly taken, tends to preserve the health. Walk one or two miles a day, regardless of weather, unless very bad indeed. Even a lady with stout walking boots, a large thick cloak, and an umbrella, may defy bad weather.

In taking exercise in very severe weather, keep your mouth closed and walk rapidly; the air can only reach the lungs by a circuit of the nose and head, and becomes warm before reaching the lungs, thus causing no derangement. Brisk walking throws the blood to the surface of the body, thus keeping up a vigorous circulation, making a cold impossible, if you do not get into a cold bed too quickly after reaching home. Neglect of these precautions brings sickness and death to multitudes every year.

The amount of exercise necessary for health is variable, depending upon natural constitution, education, sex, and age. For men from twenty to fifty, eight or ten miles a day of walking exercise may be taken as the average; and for women of the same age, about half this quantity will suffice. Less than this will go a great way, but for keeping up high health, the above amount, omitted only on thoroughly wet days, may be considered necessary.

By all means avoid a morbid desponding feeling, for scarcely any thing is more injurious to health,

Mental as well as bodily exercise is essential to the general health and happiness; therefore, labor and study should succeed each other.

The plainest food is the best, taken in quantities so small as not to oppress the stomach. A man should never know that he has a stomach except when he is hungry.

To increase muscular power, food should be taken which does not produce fat; for fat is frequently a sign of disease. A race-horse is brought to his prime condition by a system of training. So with man, if he wishes to see the full development of all his muscular power, he must restrict himself in diet, and exhaust his fat by having a good sweating every day, but not to take cold.

Lying too long in bed is injurious to health. The want of expansion of the chest through exercise, will aggravate or create consumptive tendencies, which all more or less have; and the constant heat of the back or one side, occasioned by cushioning, disturbs healthy action.

When food rises in the stomach, the stomach is speaking to us, and we ought to listen to it, or health will suffer. In due time headaches will be the result; the liver is oppressed, and cannot fulfill its functions. There has been more introduced into the body than can be conveniently disposed of. Every part receives some of the obtrusive matter; it is forced into the absorbents; the blood is unwillingly compelled to take a part

of it; the brain feels the effect of the poisonous infusion; the circulation is impeded; the heart feels it, and labors hard to do its allotted work. By persisting in the habit, life will be shortened.

Too little food has its symptoms as well as too much. The body will flag for want of stimulus; it will lose warmth and energy; and if it be found that more food restores both, and brings comfort, then more food is wanted. Every one should endeavor to discover his own maximum and minimum allowance, and adhere to it.

Those who think most, require the most sleep. The time "saved" from necessary sleep is destruction to mind, body, and estate. Give yourself, children, and servants, the fullest amount of sleep by compelling them to go to bed at some early hour, and to rise in the morning the moment they awake of themselves, and within a fortnight nature will unloose the bonds of sleep the moment enough repose has been secured.

Rise and retire at a fixed hour; take a gentle walk before breakfast; and take your meals at the same hours daily.

The less quantity of fermented liquors you drink the better.

Nothing conduces more to health and long life than abstinence and plain food, with due labor.

Where water does not disagree value the privilege, and continue it.

Late hours and anxious pursuits exhaust the nervous system, therefore avoid them as much as possible.

In order that digestion may take place, the food should be well chewed. The stomach will not deal with it in lumps. It must be thoroughly masticated and well-mixed with the saliva which flows into the mouth during mastication.

Do without medicine if possible; but in case of real indisposition, immediately consult a competent medical man.

Heartburn.—Drink a pint of very cold water. Tried. Or, drink slowly decoction of camomile flowers. Or, eat four or five oysters.—*Wesley.*

Heartburn.—"If acidity of the stomach occasions the heartburn absorbents are the proper medicines. Take 1 oz. of powdered chalk, ½ oz. of fine sugar, and ¼ oz. of gum arabic may be mixed in a quart water, and a tea-cup of it taken when necessary. But the best absorbent is *magnesia alba.* It acts also as a purgative. This powder is not disagreeable; it may be taken in a cup of tea, or a glass of mint water."—*Buchan.*

If it arises from wind, take 1 teaspoon of spirits of lavender, or the neutralizing mixture.

MEALS.—If the preservation of the life entrusted to us is the first duty of man, the keeping that life in a state of healthy action should be equally imperative. To do this effectively, the two first considerations are *food* and *exercise*, occupation of mind and body; *when* to take this food is an inquiry that should be answered with the same care bestowed on the substances which constitute our aliment. The meals, then, or the sufficiency of food to be taken at one time, should have reference not only to the person's occupation, his amount of physical and mental labor, but to his hours of action and repose.

In arranging the definite period for each meal, the person should calculate the number of hours between his rising in the morning and his retiring to bed at night, and then endeavor to divide this time into four as nearly equal spaces as he can, and assign each as an hour for a meal. It will be seen by this that we advocate the old-fashioned sequence of meals in preference to the modern and more artificial mode

of living, fully impressed with the belief that the first is more in accordance with the requirements of nature, and consequently more conducive to health. The usual number of working hours averages from fifteen to sixteen a day; perhaps the latter is more generally correct, for, should not the *body* be occupied the whole time from the getting up to the going to bed, the *mind* is; and there is consequently fatigue and exhaustion.

As the stomach usually takes from four to five hours to perform the process of digestion, and as that organ should never be allowed to remain empty for any length of time, these sixteen hours must be divided into the four periods we are about to indicate. Where unavoidable employment prevents such an arrangement, the space from morning to night may be reduced to *three* periods, but should never fall below that; for no opinion is more fallacious than that the stomach, jilted of its mid-day meal, can compensate itself from a richer and more varied repast in the evening; or that three courses at six o'clock, with plenty of time to enjoy them, will more than atone for a plate of roast meat and potatoes at one or two. The stomach, rendered torpid by long abstinence, will not be flattered into performing a double duty by a multiplicity of rich foods, in all probability as badly assorted for the purposes of digestion, as out of character by their number and incongruity.

It is also a great mistake to suppose that the breakfast is required as soon as the individual is out of bed; the stomach then has hardly recovered from the torpidity of the night, and requires action and the free circulation of the blood, before it is in a state to perform its healthy function. Those, however, who are obliged to work for two or three hours before breakfast should take with them a few mouthfuls of biscuit or bread to eat about an hour after beginning work, so that when the stomach is stimulated to full action, a small amount of nourishment should be put in it, to give the gastric juice some solid on which to operate, instead of irritating the coats of the stomach by that gnawing feeling known as the sense of hunger. By adopting this precaution, the organ will be in a state of vigorous activity when, at eight or nine o'clock, the person sits down to his breakfast.

Those whose labors do not commence till after their first meal should be careful not to partake of it for at least *half an hour* after leaving their beds, or till the body has been actively excited, if not by a brief exercise, or some gymnastic feat, by a free use of the flesh-brush over the trunk, to excite the circulation of the blood. Whatever may be the occupation of the person, the breakfast should always be made the meal of most importance, after the dinner, and though with the man of sedentary habits less substantial than that of the working man, should always consist of flesh-forming materials, and sufficiency in bulk to give the stomach material on which it can act for some hours. To induce the stomach to take in a due quantity of bread, or solid matter, a bloater, slice of bacon, piece of ham, or whatever savory article may be selected should be eaten with it, the object of all such relishes being rather to necessitate the swallowing of a large bulk of bread or toast, than any special benefit to be derived from the few mouthfuls of animal food taken. As the most important business of the day is usually performed in the morning and noon, whether the exercise is that of the mind or body, the benefit of laying up a store of nutriment in the stomach, to be converted into healthy blood as the toil of the day demands extra stamina, will be evident to all.

When the breakfast has been at eight the dinner should be at one

o'clock; and when at nine, at two o'clock. The best hour for tea is about six, so as to leave three clear hours before the supper which should consist of some simple articles—bread and butter and oysters, or bread and cheese, with celery, and a glass of ale or porter, or, to those who are accustomed to its use, a glass of spirits and water. The idea that suppers of all sorts are hurtful is most absurd and unreasonable. Hot meat suppers—a second edition of dinner, in fact—would, to many persons, be very injurious; others, however, who do not go to bed for an hour after, and whose appetite is strong, may partake of such a repast with perfect impunity. Such suppers as are advocated here may be taken with safety, and by invalids; nor will there be any fear of nightmare if the person adjourns to bed within a quarter of an hour of such a meal.

Exceptions of course frequently occur, not only as regards supper, but also as to the hours given for the other meals—cases where the person's stomach and his avocations must be consulted, and all rules made to submit to the state of the individual's appetite and his business. This rule, however, should be always observed,—that whatever hours are fixed on for the different meals, those times should be rigidly adhered to, and the virtue of punctuality in eating faithfully observed. So great, indeed, is the influence of habit in this respect, that a person accustomed to dine or breakfast at a regular hour will always—unless in ill-health—feel hungry, or disposed to eat, at the recurrence of the time appointed.

Where the meals follow at the short intervals of four or five hours, luncheon, or any intermediate eating or drinking, is not only uncalled for but reprehensible.

With literary men, and those whose occupations perpetually tax the brain, if the day's toil can be conveniently brought to a close by five, or even six o'clock, it is more beneficial to take a slight repast at one o'clock, and delay dinner till the day's work is over. If, however, their occupations engage them up to night, the dinner should be taken at two, and an hour, or an hour and a half, of perfect repose taken after it, and before renewing their labors. To the dyspeptic patient, or those suffering from habitual irritability of stomach, and where all solid food produces pain, the breakfast should be preceded by a cup of hot coffee about half an hour before taking the meal.

The habit of taking provocatives before dinner, in the shape of small quantitities of brandy, or glasses of bitters, is very objectionable, and can only be excused where the stomach is cold, and the appetite naturally languid. In such cases, about half an ounce of the compound tincture of gentian, or an ounce of the compound tincture of cardamoms, of the Edingburgh Pharmacopœia, may, however, often be taken with great benefit. See "Food," and "Digestion."

ADVICE TO MOTHERS.

BY THE PUBLISHER.

ADVICE TO MOTHERS.—The present part of our subject has reference merely to the mother as regards her new-born infant: those portions of the general subject which appertain to the mother herself, —rearing by hand, wet-nursing, duty of nurses, cutting of teeth, clothing, food, and management of children,—will be found under "Pregnancy;" "Bringing up by Hand," under "Infant;" "Nurses," "Teething," etc.

The duty and responsibility of the mother commence before the birth of her offspring, and respect herself almost as much as her child.

Leaving out of the question for the present the duties appertaining to the parent, we shall proceed at once to show the obligations the mother is under to her infant. One of the first and most important duties the mother owes, not only to her child, but to society, is to have everything in order for the reception and comfort of her baby when born; and as labor may take place at any time after the seventh month, all articles of clothing, and whatever is necessary or likely to become so, for the dressing and requirement of the child, should be provided and laid in careful and systematic order in readiness, not later than *the end of the seventh month.* So important does the law regard the fact of the mother's neglecting to provide clothes for her baby, that, in a trial for infanticide, such a circumstance would weigh very seriously against the prisoner. In such a case, the law does not look to the kind or the amount of clothing provided; a strip of cotton with a few stitches, though only meant for a bandage, would be regarded as *some* provision for the protection of her child, and the intention of procuring more willingly conceded to her.

The number of articles a mother should provide for her child must, in a great measure, depend upon her means, though there are few wives but who, in their first confinement, are able to obtain all that is strictly necessary for the occasion, especially if they are believers in the efficacy of the modern practice of leaving the poor infant's head without cap or covering. The number or the quality of the clothes is of much less consequence than the *manner in which they are made.*

The following list contains the names and the number of articles absolutely necessary for a new-born infant; as many more may be procured as the taste or circumstances of the mother may dictate:— Two rollers, calico; 1 roller, flannel; 6 shirts; 2 flannel petticoats; 3 pilches; 4 frocks; 18 diapers; 4 night-gowns; 3 caps.

There is one general rule which should be adverted to in this place; namely, that each garment should be made either with strings or loops, so as to avoid, as far as possible, the objectionable practice of *pinning on an infant's clothing.* Of this we shall have more to say hereafter.

In making her baby's clothes, there are four important points to be considered:—1. To make the dresses to come well up in the neck, so as to keep the neck and chest warm. 2. To avoid any pressure on the shoulder or tightness under the arm, which might prevent a free motion of those members. 3. To make them in such a manner that they can be put on without the necessity of repeatedly *turning the child.* 4. To avoid the too common habit of making them too long and too heavy.

Having procured, washed, and ironed her baby's clothes, they should be all carefully placed by themselves in a drawer or box, and kept where, on any emergency, they can be obtained by the nurse; other articles can be added afterwards.

If everything has gone on favorably with the mother, about a fortnight before her expected time the *basket* should be made ready. The proper baby-basket is about two feet square; it should be light, and not too deep, the whole being covered with a lining of loose dimity. The basket should contain one entire set of clothes, half of the diapers, a linen and a flannel roller, two caps, a pincushion, a pot of pomatum and one of lard, a cake of white Windsor soap, a large pomatum pot of plain violet or starch powder, a puff, a soft hair brush, and on the top of all there should be placed three or four pieces of soft old linen, a skein of whitish-brown thread, and a pair of ordinary scissors.

The prejudices the young mother acquires in the nursing of her first baby from the nurse, are liable to adhere to her through life, and may be a source of hurt to others, and an injury to the health of her own children. That the young mother should implicitly believe what her nurse tells her, is not to be wondered at, as such statements come to her with all the potency of tradition, and as the result of incontestable experience. We shall have occasion to refer to some of these vulgar errors and prejudices under the article "Nurse," which see. Two instances are sufficient for our purpose now. One of these is the habit some nurses have of giving the infant, the instant it is taken on her lap, a few tea-spoons of *warm gin, or rum and water, sweetened with sugar;* the other equally objectionable, but more hurtful practice, is that of dosing the undressed infant with *castor oil.* A more glaring mistake, or a grosser outrage on an unoffending stomach than either practice, cannot be conceived: a poor child, who has hardly drawn half an hour's breath, has its tender stomach excessively stimulated by spirits and water, or its bowels racked with a drastic purgative. Yet how many hundreds of infants are made daily to take their first mortal taste from spirits or physic!

The phenomena produced on the infant's body by its first gasp in life, with all that appertains to its existence before and after birth, will be explained under the head of "Infant," which see. The first duty the new-born child claims at the hands of the nurse is that of washing.

The principal object of attention in performing this operation from first to last, is to be tender and quick, and only to *turn the child when actually necessary;* it is the length of time taken up in the process, the rough handling, and repeated changes of posture, that renders washing so distasteful to the infant, and calls forth, by shrill cries, that noisy protest to the ceremony: the nurse, in her gossiping task, ignoring the fact that the infant's skin, full of blood and sensation, is the most tender part of its body, and keenly susceptible of her often rough hands and the cold air.

A bath with warm water being placed at her feet, a horse with the clothes required before the fire, and near her reach, and the baby basket on the opposite side, the nurse, with a sponge and white soap, should commence the business of washing, beginning always with the head, and *absorbing* the moisture from the body by gentle pressure with a soft, porous towel, instead of rubbing the parts dry. Sometimes the body is coated with a white tenacious substance, which can only be removed by warm lard being first rubbed over it, and afterwards washed away.

As soon as the child is dressed, it should be taken to the mother, placed at the breast, *and the first substance allowed to enter its mouth drawn from the mother.* Nature has purposely arranged that the first secretion of milk for every child should be adapted to the wants of the infant; and as the body requires cleansing, and the stomach cannot immediately digest the cheese into which the milk is converted, the first secretion of milk is purposely thin and poor, possessing aperient properties, and almost destitute of those cheesy elements of which, in a few days subsequently, it contains so large an amount. The first flow of milk is of the utmost consequence to the child, and does away with any *pretense* for physic, or the necessity of *feeding.* Where, from ill health or other causes, the infant cannot be put to the breast immediately, that plan must be adopted which is laid down in "Bringing up by Hand." See "Infant."

One of the duties the mother should never neglect to see to, is that no bandage or string confines either the action of the abdomen or chest; for the well-being of the body depends upon the free play of the organs contained in those cavities.

At the same time, the robe and frock should neither be too long nor too heavy, so as to press on the child's feet; and as often as possible the limbs should be rubbed with the hand, and plenty of air admitted to them. The infant cannot too soon be accustomed to *regularity* in the times of feeding and sleeping; a child should not be suckled oftener—as a general rule—than once in every three or four hours, and then rather after rousing from sleep, than just before going to its cradle. The child should be put down awake, and allowed to fall asleep without rocking or singing to. When awake, it should be tossed and moved about as much as possible, or laid on its back on the carpet, and permitted to kick about its legs and work its body as much as it pleases.

The mother should *never take her infant to bed,* or allow it to sleep with her, but so arrange the crib or bassinet, that it may be on a level with her own side of the bed, so as on waking to be able easily to reach, and, when necessary, to suckle her baby, or to take it in her arms. But there is nothing a mother should more carefully shun than the extremely hurtful practice *of falling asleep with the child at her breast;* the injury to the child from this habit is nearly as dangerous as it is to the mother.

The cause that renders the infant's body so susceptible of cold or rough contact makes the stomach and bowels equally sensitive to all irritating drugs or hard substances of food; this fact should never be lost sight of in administering physic or aliment to very young children.

On this account, whenever practicable, the *mother* should *take the medicine,* and allow it to react through the milk on the child, instead of irritating the digestive organs of the infant by powerful purgatives.

For the same reason, the appearance of the teeth should guide the mother as to the giving of an infant solid food; for till nature supplies the mouth with teeth, any aliment but a strictly liquid one is both hurtful and improper. The first or milk-teeth, as they are called, plainly indicate the nature of the food the mother should give her infant to prepare for its weaning; and not till some of the second set begin to show in the gums, should finely cut animal food be offered to the child. As aliment is the means by which all the organs and members of the infant are developed from their comparatively embryo state, the parent should remember how important it is that the food she supplies her offspring should be of the best possible description—especially as regards her own milk: to keep this pure, and of the most nutritive quality, should be her foremost duty. And as the health and strength, the physical and intellectual qualities, as well as the moral happiness and longevity of the man or woman, all depend on the care and judgment shown by the mother in carrying her child through the *first two stages of life*, it behooves every parent to know that the best means to effect such great results are by abundance of air, cleanliness, proper exercise, and a sufficiency of good and nutritious food.

Dress.—The title of this article may to some persons seem out of place in a work of this kind; but in a prophylactic light, and as a means to prevent or ward off disease, it is eminently applicable. It is not, however, our intention to enter deeply into this subject, or, indeed, do more than give a few general directions as to the clothing or the dress of children; what we may have to say with regard to their mothers will be still more general.

In a variable climate such as we are subject to in this country, the mother cannot begin too early to attend to the equable warmth and comfort of her infant's clothing. The foolish and dangerous practice that came into vogue with the no-bonnet fashion, of leaving infants' heads uncovered, we hope, for the credit, humanity, and good sense of our countrywomen, has had its day, and is going out; for a more pernicious, and, as far as the health of the individual is concerned, dangerous system, was never practised.

This is not the place to argue the question of a covering for the head; but surely the example of five thousand years among all civilized nations ought to be a sufficient authority for mothers who wish to bring up their children in the established rules of health and strength. The attempt to rear children born in a populous city, or under all the conditions of a high state of civilation, like the infants of an Indian, with the idea of making them hardy, is not only absurd, but mischievous; for the hurtful example of one mother leads to the practice of many.

Setting aside the unsightly appearance an infant makes with its uncovered head, on which nature has not yet placed the clothing of hair, it is actually injurious to expose the half-revealed brain of an infant to the perpetual vicissitudes of our climate. Surely the wise and stalwart men whom this country has produced within the last three hundred years are a sufficient proof that the legitimate fashion of caps—whether made of flannel or muslin—cannot have been hurtful to the intellect or frame of their wearers.

Next to the head, which it is a mother's duty to cover, but without oppressing, the feet and the stomach of her child should form the chief objects of her solicitude. This is a precautionary care which will demand the parent's attention from the earliest stage of life, or till the adult has the discretion to guard himself from the assaults of

damp and cold. The importance of keeping the stomach well protected, particularly in wet and windy weather, cannot be too much insisted on. If the feet are well covered by woolen socks and thick shoes, the stomach and chest enveloped by warm, close-fitting clothes, and the head lightly covered, all other parts of the body may be safely left to wind and weather; not that we would advise weak, rickety, or delicate children to have any portion of their bodies exposed to the atmosphere. Such children (and the great number of bowed-legged boys and girls to be seen on holiday occasions in our streets, shows how prevalent is this form of debility among the working classes,) should have their thin, delicate limbs most carefully protected from the cold, and the circulation by every means *stimulated* to, not *repelled*, by cold, from their emaciated members. Yet how often do we see such puny children, with limbs hardly larger in circumference than walking-sticks, with exposed legs, bare arms, and such limited latitude of skirts, that they hardly suffice for decency, and are totally incapable of supplying warmth! If the motive that induced this species of gossamer costume was based on any valid principle, we could forgive the parental vanity so often conspicuous in the fanciful garb of the child; but as no infant of civilized parents was ever benefited or made strong by the domestic *regime* of a savage, we must strongly condemn a course that can only tend to swell the bills of mortality.

As regards women, it may be said of females in general, that they are *not* sufficiently dressed—particularly young and unmarried females—safety and comfort being too often sacrificed to fashion, taste, or appearance. It is after coming from heated theatres, ball-rooms, and such places, that women are so remiss in taking that precaution to guard the lungs by a veil, and the chest by a shawl, so absolutely necessary. The observations we have made about the head, feet, stomach and chest of children, should be attended to as rigorously by females at all periods of life from 17 to 50.

Infants, Management of.—A child, when born, should be laid, for the first month, upon a thin mattress, which the nurse may sometimes keep on her knee, that the child may always lie, and only sit up as the nurse slants the mattress. Keep it as dry as possible. At the end of a month, the nurse may set it up, and dance it by degrees.

The clothing should be light, and not much longer than itself, that the legs may be readily reached and rubbed, for rubbing takes off scurf, and causes the blood to circulate. Rubbing the ankle-bones and inside of the knees will strengthen those parts, and make the child stretch its knees, and keep them flat.

Do not keep a child too long in the arms, lest the legs should be cramped, and the toes turned inward. The oftener the posture is changed the better.

During the first fortnight the child should sleep on a bed, except when taken up to supply its wants, which will give it early habits of cleanliness. It is injurious to be laid always asleep on a person's knee.

By slow degrees the infant should be accustomed to exercise, within doors, and in the open air. It should be carried about, and *gently* dandled in the nurse's arms. Exercising a child in the open air, in fine weather, is of the greatest service.

Endeavor to harden the body, but without violent means. A child is constitutionally weak and irritable; hence we should try to strengthen the child, and diminish this irritability, in order to procure it the greatest blessing—a firm body, which may resist all influence of air and weather. The cold bath may be used too much, and bodily exercise may be too violent.

Infants should by imperceptible degrees be inured to the cool, and then to the cold bath. If they have been accustomed to an effeminate treatment, and should be suddenly subjected to an opposite extreme, such a change would be attended with danger.

The child's skin is to be kept perfectly clean, by washing its limbs morning and evening; begin with warm water, till, by degrees, it will bear, and like, to be washed with cold water. After carefully drying the whole body, head, and limbs, another dry soft cloth, a little warmed, should be used gently, to take all the damp from the wrinkled and fat parts of the body. Apply gentle friction to the body, but do not press upon the stomach and bowels. If the skin is chafed, hair powder, or violet powder, is to be used, or a thin mixture of fuller's earth. For the head, a small soft brush is safer than a comb. It should have clean linen, etc., every day.

Some females in dressing an infant are very rough, and must harass and fatigue it much. The most tender deliberation should be observed. Never let the clothes be tight. Never use pins, for they are dangerous. The strings must be tied so slack that one might get two fingers between. Many instances of idiotism, fits, and deformity, are owing to tight bandages.

Never expose an infant to open doors or windows, especially in winter. The extreme of a summer day should also be avoided. Excessive heat or cold will injure an infant. Infants should not be kept too near the fire.

The wisest course in treating infants, is to follow the simple dictates of nature; yet some people are so devoid of consideration as to give them wine, spirits, spices, sugar, and other things too strong for their tender stomachs. The first milk a baby can draw from its mother's breast is medicine and nourishment for it, and if she is too ill to give it, it is better to let it wait a few hours, than to give it any kind of food. But if it is very craving, mix milk with soft boiled water, and give it half a tea-spoon at a time, only warm, for the mouth cannot bear much heat. Let it swallow one little portion before another is offered, and raise its head that it may pass the gullet easily. Do not overload the stomach, which may greatly disorder the infant, and become the foundation of gluttony.

If a mother cannot suckle the child, get a healthy, cheerful woman, with young milk, who is fond of infants. After the first six months, broths, and simple food, may do as well as living wholly upon milk.

If milk cannot be had, a tea-spoon of the yolk of a fresh egg, well beaten, and mixed with two table-spoons of soft boiled water, will do instead. Three inches square of lean veal, and one inch thick, will make soup for a baby for two or three days. Boil only half at once, in a pint of soft water, down to two-thirds. Strain. When cold take off the scum. Warm a little as wanted. A thin gruel also may be made from rice flour.

In the latter part of the first year, pure water may occasionally be given. Those parents who accustom their children to drink water only, bestow on them a benefit, the value of which will be sensibly felt through life. Habits of intemperance, the curse of after life, are often laid in infancy.

Rising early in the morning is good for all children, provided they awake of themselves, which they generally do; they ought not to be waked out of their sleep. Children, till they are two or three years old, must never be allowed to walk long enough to be weary.

In laying a child to sleep, place it upon the right side oftener than on the left, but twice in the twenty-four hours it should be changed to the left side. Laying it on its back when it awakes, is enough of that posture, in which alone it can move its legs and arms with freedom. Place the cradle so that the light may come equally on both eyes, to prevent squinting.

Infants cannot sleep too long. Sleep promotes a more calm and uniform circulation of the blood, and facilitates assimilation of the nutriment received. Mothers and nurses should try to accustom infants, from the time of their birth, to sleep in the night, preferably to the day.

To awaken children from sleep with a noise, or in an impetuous manner, is unwise and hurtful; also to carry them from a dark room immediately into a glaring light, for the sudden impression of light debilitates the organs of vision, and lays the foundation of weak eyes from infancy.

Infants are sometimes very restless at night, caused by either cramming them with too much food, by tight night-clothes, or by being overheated with blankets, etc.

Never give an infant wine, spirits, or any drug, to make it sleep. Milk, water, or both mixed, whey, or thin gruel; these are the fittest for infants. The more simple and light their diet and drink, the more they will thrive.

A bedroom or nursery ought to be spacious and lofty, dry, airy and not inhabited through the day. Feather beds should be banished from nurseries, as they are an unnatural and debilitating contrivance. The windows should never be opened at night, but left open the whole day, in fine clear weather.

Nurses ought never to conceal any accident befalling a child. All violent impressions on the senses and bodies of children should be avoided. It is injurious to toss them about rapidly and violently in their arms. Loud crying, or shouting in their ears, presenting glittering objects to their view, and sudden and too great a degree of light; such practices are very injurious.

A New York physician makes, in the *Times*, the following sensible suggestions concerning the care of infants during hot weather:

Loose, light, clean clothing, covering the entire body. To be changed each day, if possible. No bandages whatever.

Bathe the infant morning and evening in simple tepid water, and dry thoroughly. Use no spirits or washes of any kind.

Keep rooms and all bedding clean and well aired.

Feed a nursing infant on bread and milk only, and not oftener than every two or three hours; occasionally a tea-spoon of cool (not iced) water, but let no other material whatever pass its lips. It must not be nursed more than once between bed-time and rising. Give it water by the tea-spoon, if it cries.

Feed the bottle-fed infant as follows: Boiled fresh cow's milk diluted one-third with sweetened barley water. Milk and a little lime water. Water occasionally to drink, but not another article of food. Especially avoid farina, corn starch, arrow-root, etc. Give the bottle once in every two or three hours.

When the child vomits after taking food, do not give it any more for a couple of hours. The fact of its vomiting shows its stomach, for some cause, does not tolerate the food; so give it rest, and thus the stomach will recover, and at the end of a couple of hours will receive and digest the food.

If the bowels are loose, do the same as above, feeding the child sparingly, only every three or five hours. Keep it quiet, apply warm mustard cloths to its abdomen, and, if feverish, give it a hot bath. Give no patent medicines, decoctions, or other remedies. If it does not get better in twelve hours, send for a doctor.

The following article upon the "Treatment of Children," by Abram Livezey, M. D., we take from *Peterson's Magazine*, and commend it to the careful perusal of every mother who cares for the welfare of her children. They will be amply repaid for the time thus spent:

NO. I.—The Use and Abuse of Calomel.—I warn mothers against the general use of calomel, given so freely by too many physicians. From the smallness of the dose, its almost tastelessness, the facility with which it may be given, it is resorted to in numberless cases, where it is not only unnecessary but positively injurious.

In the bowels of children nature has supplied an abundance of mucus to shield those parts, so tender in infant life, and to protect them from the effects of irritating substances. A dose or two of calomel, however, speedily removes this protection of the bowels in infancy, and, when repeated a train of symptoms ensues which endanger the child's life, and excite alarm in the maternal bosom. Its strength is suddenly gone; "its legs and arms hang helplessly down; it is peevish and fretful; the face assumes a pinched expression;" one cheek is oftimes flushed, the other pale (and the mother thinks it has *worm fever;)* the abdomen is very hot to the hand; there is dryness of the lips, from the irritative fever induced by the action of the calomel; the nose is deprived of its natural moisture, becomes also dry, and itches, and the child thus picks both, and the mother is sure, from this symptom of irritation, that the child has worms, and the doctor too often coincides, and more purgative medicines is given to free the little suffering patient from imaginary parasites! If the child be of a very vigorous constitution, it may triumph over both the disease and the folly of the doctor; but if, on the contrary, it be feeble, it will lie with its little attenuated limbs stretched out, indifferent to all around it, until death closes the scene.

Children who have been over-dosed with calomel have always a tedious convalescence, and exhibit an old look, in consequence of the rapid absorption of fat.

Lest in my strictures in the use of calomel, some of my medical readers should mentally charge me with *eclecticism*, I will quote a few paragraphs from Dr. Beck, against whom no such charges can be made:

"When salivation does take place in the child, its effects are most disastrous. Sloughing of the gums and cheeks, general prostration, and death, are by no means uncommon occurrences."

"In bowel complaints, under the idea of altering the secretions, it has frequently helped to keep up the very intestinal irritation which it was given to correct."

"It ought to be a rule laid down, and rigidly followed, that in very young children, mercury ought never to be used as a cathartic, unless there is a special reason for resorting to it."

"Let mothers, then, who prize the health and well-being of their children (and what mother does not?) beware of these little white or gray powders, too frequently prescribed by the family physician, who often does so out of regard to the taste of the child."

In its place, castor oil, or the rhubarb and lime-water mixture, is best adapted to bowel disorders of infants and children; and Husband's

magnesia alone, or with half the quantity of rhubarb, or an infusion of senna leaves, with some one of the aromatics as ginger, annise, fennel will answer every good purpose when their little stomachs are clogged, livers torpid, as indicated by coated tongue, etc. No medicine, says Professor Gross, acts so well upon the whole secretary system as senna.

NO. II.—Use and Abuse of Blisters.—Opium, tartar emetic and mercury, like the fabled weird sisters, Clotho, Lacheis and Atropos work in harmony together to abbreviate the span of infantile existence; and when they fail to cure (!) or remedy "remediable ills," another lethiferous agent is brought into play to finish the work, so badly carried on from its inception. This is the *fly-blister*—cerat, canthar,—as it usually appears on the prescription paper, of the action of which, and its effect upon young children, every mother should be informed.

As the skin, in infancy, is more delicate in structure, possesses greater vascularity, and a much higher degree of sensibility, it is at once apparent that blisters must not only produce their specific effects in a shorter time than they do in the adult, but the inflammation resulting from their action is also much greater in the young subject, and are much more apt to be followed by injurious consequences from the resulting inflammation, such as deep, rodent ulceration, gangrene, and even death. Melancholy instances of this character, quite too numerous, can be found on medical record.

Dr. Ryan says: "I have seen a blister on the chest followed by sloughing, and an aperture form over the epigastrium, which exposed the viscera beneath."

The late Professor Chapman, of this city, wrote, that in children a blister "sometimes induces gangrene, as I have witnessed in two or three instances."

Fortunate, indeed, is the physician who, in a practice of twenty five years, has not seen many such cases in his own practice, or that of his professional brethren. Recently I was called to a babe of a few months old, abandoned by the family physician as hopeless, upon whose little breast I found a partially ulcerated and inflamed surface four inches square, the result of a fly-blister ordered to be left on six hours by an "aged and experienced" physician, a day or two previous. The infant died, of course, not from the catarrh, but from gangrene, which utterly destroyed the intercostal muscles between the first and second, and second and third ribs, on either side of the sternum.

When blisters are ordered by the family physician, the mother should entrust its action to none, but have a personal, watchful care over it, raising the plaster at no distant intervals, and observing the condition of the skin, and remove it as soon as the surface appears uniformly reddened, and then apply a soft, moist poultice of bread and milk. Thus will be effected vesication in a few hours, and all the good that can possibly be derived from the blister, and the possible injurious consequences generally avoided.

Do not allow a blister to remain on a child six, four, or even two hours, though so ordered by "age and experience," without the above precautionary measures.

In two or three hours after the application of the poultice, the serum will be ready, generally, to discharge, and then a thick layer of finely corded cotton should be applied, to absorb the continued discharge. In two days under ordinary circumstances, a new cuticle will be formed, the old come off with the cotton, and the blistered surface cured. Space will permit for only one more caution in reference to

the application of this powerful agent; and that is, when the skin is in a morbid or preternaturally injected and excited state, as in the case of measles and scarlatina, ulceration and gangrene are by no means unusual sequences of blisters.

Professor Dunglinson leaves behind him the recorded fact that he has seen "several cases of death manifestly caused by the use of blisters in scarlatina and measles." This should be received as precautionary advice by the young practitioner, and even if the experienced and aged one is so unmindful of the dangers of their improper or injudicious use, mothers should exercise a respectful but firm stand as the natural protector of their children, against the "use and abuse of blisters."

NO. III.—Irritation—General.—Of all subjects connected with this department, and of all the duties which devolve upon the mother as a watchful guardian of the health and well-being of her children, there is no one more important, and none that will reward her more to study, than that of IRRITATION; for, with a knowledge of its source and results, she will be able to guard against the causes, remove the effects and very often, by timely and simple ministration, relieve many diseases of infancy and childhood.

Irritation is a disordered state of the nerves of the part affected, with more or less pain and functional disturbance; a state in which the predominant symptom is nervous derangement, which is neither accompanied by, nor results from inflammation. The influence of irritation, as a cause of disease, is wide spread, and a knowledge of its effects will guide the mother, not only in the detection of disease, but enable her wisely to remove or combat it. She will thus learn that most diseases of infants proceed from irritation of a higher or lower degree, and not from inflammation, a fact that is too often overlooked by medical men, who, through fear of this *bugbear*, resort to leeching, blistering, mercurials and antimonials, to prevent or subdue it, to the great injury of the little patient. For if a disease proceeding from irritation be treated as an inflammatory one, the case will be greatly aggravated.

It is a great physiological fact, and mothers should be aware of it, that every organ of the body is liable to derangement in its function from the influence of irritation; and that such deranged action may occur directly or indirectly, from sympathy with other parts, organs, or functions of them in an unnatural state of excitement or irritation. To illustrate the foregoing observations, I will specify some of the sources and effects in and upon children. The function of the brain may, for a time, be more or less paralized, assuming all the symptoms of stupor or apoplexy, in consequence of the pain attendant upon teething, or from the irritating effects of undigested or crude food in the stomach. From similar exciting causes, as well as from worms in the alimentary canal, will convulsions often ensue. Even external impressions of a powerful kind, will exert similar effects, and produce convulsions as the following cases, related by Surgeon Hood, clearly proves. The christening of the first son of a nobleman was to be celebrated with great pomp at night, at which time the apartments were lighted with the utmost brilliancy. The moment the infant duke was brought into the drawing room, the sudden glare of the strong light caused almost instantaneous convulsions, from which the child never recovered.

A married lady, very highly connected, was to inherit a very large estate provided she had a son. Consequently, when her first son was

born, there was great rejoicing at his christening, and a bishop was invited to perform the ceremony. When he arrived, the servants knocked so loudly at the room-door that the child was frightened into convulsions, and died soon after.

NO. IV.—Irritation—Special.—Having spoken somewhat in general terms of the influence of irritation upon the young child, I will now point out some of the special effects arising from the same source.

Flatulency is directly a cause of much pain and discomfort to the babe, and indirectly produces palpitation of the heart, whilst derangement of the stomach and liver, especially if attended with acidity, will not only produce the same effects, but, in addition, give rise to acute pain in the region of the heart. Cold is also a most common cause of irritatation, not only causing pain and distress in the bowels, but more frequently acting upon and deranging the functions of the lungs and air passages.

Who has not noticed how remarkably have children, when properly clothed, escaped entirely the ordinary affectations of the chest during the first year or two of their existence, proving conclusively that judicious clothing becomes really a prophylactic against catarrh, as the converse has always been observed where diseases of these organs constantly abound.

Mothers should remember that even if the infant with bare arms, chest and legs, should escape from catarrh before the period of teething, it will be fearfully in danger when this irritative process commences, as it seems to deprive the lungs of their previous power of resisting the effects of colds.—*Hood.*

Every mother knows, (and yet how often she overlooks the fact,) that teething will so affect the digestive powers as to cause sickness and loss of appetite; and the excitement increasing, and the irritation extending, will sometimes produce quite a severe purging.

So susceptible is the nervous organizations of the infant, that this natural tenderness of early life renders them liable to powerful impressions from slight causes of irritation.

After the age of three years, such diseases as arise chiefly from irritation become less common, and sudden attacks more rare. Now, also, the brain is more frequently attacked or suffers more from increased nervous excitement instead of the lungs or organs of respiration, as was the case in the earlier stages.

Many parents manifest a desire to make their children *smart* or precocious at this early period, and they resort to means to effect this, that frequently excite the brain in a forcible and unnatural manner, and cause functional derangement of that important organ. Such precocious children are generally of a nervous temperament, their muscular system imperfectly developed, and a too rapid growth of the body induces debility and languor in the circulation, and consequently an insufficient supply of blood to the brain.

Finally, mothers should ever remember, that the confined air of the bedchamber predisposes to irritation of the throat and lungs. Hence the suddeness and frequency of attacks of spasmodic croup, and other irritations in the respiratory organs during the night, when the child has been put to bed in apparent health.

Well ventilated rooms are of the first importance to children as well as adults, during dentition especially; and the good effects of such rooms cannot be too highly appreciated by both clases. "Infantile physiognomy," etc., or what can be learned from the study of the expression of the face, and its general movements, are interesting and important

topics to the careful and conscientious mother, who desires to discharge her whole duty to her offspring; and this study will next engage our attention.

NO. V.—Infantile Physiognomy.—This is a subject not only of paramount importance for medical men to study, but equally so to mothers; for from the expression of a child's face a certain kind of information is to be derived that cannot possibly be learned from any other source.

For instance if there is a look of or an appearance of heaviness about the eyes, with pallid features; if the child rolls its head, and cries out frequently, it most probably suffers from pain in the head; or if it scowls or frowns at the introduction of light, and seems to dislike it, there is good cause to believe that there is more or less difficulty in the freedom of circulation of blood in the brain.

If the muscles of the face and forehead become contracted, giving the features a *pinched* appearance, with an occasional bluish tinge on the upper lip, and about the angles of the mouth, which appears also puckered; if, with these appearances, there is conjoined a drawing up of the child's legs, and the child screams or cries "by spells," it is probably griped, and is suffering from flatulency, (wind colic,) as well as from an excess of acidity in the stomach and bowels.

During the process of teething, if the lips, mouth, and tongue become dry, with a cessation of the usual flow of saliva, irritation with pain in the gums, is then indicated, and should receive attention.

Sometimes a child is noticed to grow pale, the flesh becomes very soft, blue veins manifest themselves in an especial degree on the forehead, and a general lacking of that natural animation so peculiar to children ensues—symtoms which indicate a deficiency of red globules in the child's blood, or, in other words, the blood contains more serum than is compatible with health. Such delicate little children are apt to be attacked with *laryngisms stridulus*, a form of spasmodic croup, or growing respiration, that sometimes causes sudden death.

The eye of a child is a good index of the state of the brain. The brain is considered to be suffering from irritation if the pupil contracts on exposure to light; but if the pupil is dilated, and exposure to light has no influence upon it, we conclude that there is congestion of the brain, from some cause, generally from imperfect circulation of blood through that organ, or from effusion through the ventricles.

The pulse is a too uncertain guide, except to those of enlarged experience and observation, to be of any benefit to the mother, and we consequently pass it by.

The skin, both as to its texture and color, is a much better guide, and can be profitably studied by the mother. For instance, if it be steadily harsh and dry, she may be concerned that there is some source of irritation or derangement exisiting in some vital or important organ, as the stomach, liver, or bowels; whilst if the skin be of a dirty white, the liver does not secrete and discharge the bile through its proper ducts into the alimentary canal.

There is another appearance of the skin, denominated by some authors as "pasty," or bluish-white color, that is seen in children of unhealthy condition, with most of the secretions of the body deranged, and, consequently, the blood becomes impoverished and unhealthy also.

Mothers can readily acquaint themselves with some of the most prominent symptoms of disorder in their children, and thus justly judge better whether they should summon medical aid.

NO. VI.—Infantile Prognosis.—The mother need not be alarmed, generally, if her child be "fractious and cross," even though it be apparently quite ill, for in nearly all such cases, but little danger is to be apprehended.

Crying also need never excite alarm, unless for a long time, and unaccountably continued; for children, however ill they may seem to be, if disposed to cry, will seldom succumb to the exisiting malady. Crying, in fact, is the infant's language; and when this is absent for a length of time, there is more occasion for uneasiness, and more danger to be apprehended, than when present even to an intense degree.

Yet it is possible for a prolonged fit of crying, in a healthy child, to produce a state resembling congestion of the lungs, as it is manifested by the turning of the face to a pale color, the breathing becomes short and quick, and is attended with great restlessness—a state which continues until the circulation is restored to its wonted tranquility.

The position of a child is an important diagnostic of its condition, by the observance of which the mother can satisfy herself that there is, or is not, danger brewing to her child. For instance, even though the child be thought, in her fits of fear, to be alarmingly ill, yet if it reposes upon its side, the arms easily bent, (perhaps the head resting upon one of them,) with the thighs drawn up toward the abdomen, she may safely conclude, "there is no danger to be apprehended to my darling babe;" but if it is observed to lie upon its back continuously, its legs stretched out, its arms extended, and fingers clenching the thumbs in the palms, together with more or less rigidity of the muscles of the body, then, surely, in all such cases, there is much reason for serious apprehension on account of the presence of powerful irritating causes existing somewhere in its system, and a medical attendant should be summoned without delay. Lastly, when a state of apathy or indifference to all external things or impressions is manifested by the child, owing to exhaustion, or any other cause, the mother may justly have cause for serious apprehension; for such a state, or condition, clearly indicates that the vital powers are giving way—that the strength of the little patient is gradually, but surely, sinking; that probably there is a commencing effusion within the ventricles of the brain, from a languor of circulation through it, or from "the blood being of so watery a consistence as to fail in communicating that degree of stimulus which, in its healthy state, it never fails to impart."

Hence it should ever be borne in mind that morbid irritation exerts a powerful influence over the diseases of children, and the strength of the child should not be so generally prostrated at the onset of disease, by the use of exhausting remedies. Children are very tenacious of life, and in trying to effect too much in too short a time, we often err; and too many sink under this "bold practice." The *vis medicatrix naturæ* or healing power of nature, is very great in children; and this power should be carefully fostered and aided by remedial measures, simple in their character.

There is no question but many "children die from officiousness of the physician," (Dunglinson,) whilst "many triumph over both the disease and folly of the doctor."—*Mitchell.*

No. VII.—Teething.—By the Registrar's report, one-eighth of the whole number of deaths in England, occurs during the second year of existence—a mortality very nearly equal to that of all the deaths occurring between the ages of ten and twenty-nine years.

The cause of this great mortality is believed to arise from the fact, that during this period children *cut* the greatest number of teeth, and

are, in consequence thereof, most susceptible to impressions of an irritating character; and pain and irritation incident to this period, most readily induces functional derangement of every organ of the body. That "teething gives rise to more of the maladies to which infants are subject than any other known cause," is a truth, the importance of which, to the mother, cannot be over-estimated. And this *cause*, most unfortunately for the well-being of the infantile race, is too frequently overlooked by her and physicians generally; for the disturbance of the functions of the brain, organs of respiration, stomach, and bowels, arising from dentition, is often so great, and the symptoms so prominent, that the exciting cause (teething) is entirely overlooked.

The forming tooth, pressing upon the dental nerve below and the distended, sensitive gum above, induces pain and nervous irritation, which causes the heart to beat with greater violence and rapidity, and consequently, more blood than is consistent with their healthy functions, is propelled into those organs, and mischief results from unequal distribution of blood, more or less local congestion, and imperfect oxygenation.

Less danger results when the irritation of teething affects the bowels, as a moderate purging usually affords some relief, though often of a temporary character, to the child's sufferings.

If the diarrhœa continues, however, the circulation soon becomes languid, from a diminished supply of blood, as the unnatural discharge of fluids from the body lessens the amount of the circulating fluid, and the child soon becomes either peevish and fretful, or listless and languid, with an inclination to sleep, and manifests most clearly an impoverished condition of the blood, namely, a deficiency of red globules in it.

The lively sympathy existing between teething and the brain, is very frequently productive of convulsions; and long continued irritation in the gums should never be allowed to exist. When a child has once had convulsions during teething, it is rendered more prone to them, and hence the mother should be carefully watchful in the future, and have the swollen gums freely lanced whenever the child manifests any evidence of suffering from the impinging tooth. If this caution is attentively observed, the dreaded attack can nearly always be warded off.

The sympathy between "teething" and the windpipe is also remarkable, particularly in children whose nervous organizations are delicate; though the robust as well as the pale and weakly are not exempt from these sudden attacks of spasms indicated by a *crowing*, croupy respiration. These sudden seizures of interruption to normal breathing are very alarming to the young mother especially, as the child struggles for breath, its face becomes livid, and when the spasm subsides, it looks much paler than usual. In all such cases the mother, instead of resorting to such nauseants as hive syrup, tincture of lobelia, antimonial wine, etc., should carefully examine the condition of the gums, and the cause will there be generally found, and the means of cure are lancing the tumid gum.

Its Sympathies.—The sympathetic irritations arising from the growing tooth pressing upon the large nerve beneath, and the sensitive filaments in the swollen gum, are many and important, and should be well understood by mothers.

It was observed in the previous remarks, that teething was a common exciting cause of disturbance in the functions of respiration. This arises from the fact, that pain and irritation, especially in the

young subject, produce a rapidity in the circulation, which causes a hurried breathing, and in time leads to the production of symptoms resembling those of inflammation of the bronchi or of the lungs.

In these cases the face becomes hot and flushed; the head suffers from the impure blood sent by the brain, and convulsions may ensue. Now if the physician who is called, misjudges this case from nonfamiliarity with diseases of children, and supposes it to be a true inflammatory action going on within the chest, and gives the child a sharp purge of calomel, and advises antimonials, he will do the child incalcuable injury, as will be evidenced the next day by its pale and exhausted appearance. And all the above symptoms, in a severe form, will return the following night, when the physician will again be called, and most probably follow up an erroneous treatment by blistering the chest, etc. The fate of this child is easily foretold, unless, indeed, it be possessed of a very vigorous constitution. But one experienced in the maladies of children will always examine the mouth of these cases, and find some one or more of the larger teeth pressing strongly against the gums, which he will lance freely, order a warm bath, perhaps, and some simple carminative aperient, and find the child quite well the following day.

A rattling of mucus in the throat of a healthy child sometimes needlessly alarms the over-anxious mother, for it is unattended with any disturbance to respiration, it will soon pass away under the use of a half to one grain of ipecacuanha, (or an equivalent dose of its syrup,) at bed-time, for a few nights. Catching of the breath and great irregularity in breathing, are other symptoms frequently occurring during dentition, and are indications that the gums require lancing.

Irritation attending teething, in numerous instances, causes the child to become feeble, and its muscles flabby, and sometimes even die suddenly, through spasms of the glottis. In other cases the digestion becomes impaired, the stomach is distended, bowels deranged, the sleep disturbed and unrefreshing, and the child becomes peevish and fretful. A cough is not unfrequently present; the child's lips, and also the nose, are dry, which it inclines to pick; and the mother is induced to believe that worms are the cause of the trouble. Yet such conditions are seldom seen after the period of dentition has passed.

When the diarrhea, which occurs during teething in robust children, is of a mild character, it is more or less beneficial, as nature thus endeavors to remove the irritation existing in the system of the child. But if the child is of a delicate habit, its face grows pale, and its flesh flabby, the diarrhea becomes exhausting and dangerous, and convulsions, resulting from debility, are liable to ensue.

In these and the preceding cases the usual carminatives, spiced rhubarb, chalk mixtures, etc., fail to afford relief. But if the gums are scarified, little difficulty will be found in controlling this form of illness by the administration of a few drops of paregoric, half a tea-spoon of syrup of poppies mixed with a tea-spoon of the compound infusion of roses—a similar dose two or three times daily. The child should have calves' foot jelly, to which should be added a little isinglass and good port wine.

When children are cutting teeth they should have the benefit of pure air, and more especially should this be attended to when fever occurs as the result of irritation from this cause. The room should be well ventilated, bed-curtains dispensed with, and the covering of the child, when confined to its couch, should be as light as is consistent

with moderate warmth merely. Children who have passed through the more alarming stages of dentition, or some disease during this period, are frequently met with, who still seem to waste, to lose strength, and manifest great disinclination to take food. In these cases it becomes a nice question to determine whether purgative medicine should be administered. This point can safely be determined by distending the lips, and, though the tongue may appear clean, if the cavity of the mouth is found lined with adhesive, thick saliva, presenting the appearance of a gummy exudation, laxatives are clearly indicated.

In such cases rhubarb and magnesia (Husband's) can be advantageously administered, and the child will soon be more disposed to partake of nourishment. In the next place, where the tongue is clean, there is no medicine comparable with the aromatic sulphuric acid, in small doses, twice a day, to remove the debility, or restore the strength, and hasten convalescence.

Eczema, or clusters of vesicles, with burning heat and porrigo, or scald-head, attended with or without enlargement of the submaxillary glands, (swelling beneath the under jaw), often arise during dentition, and are obstinate affections. Attention to the gums, an occasional dose of rhubarb and magnesia, elder ointment, or dilute citrine ointment, will soon remove the cutaneous eruption; and an emetic of ipecac, at least twice a week, will generally soon cause an absorption of the glandular difficulty. Sometimes a little of the ointment of iodide of potassium is required to be rubbed around the swelling; and in cases of debility, it is well to administer the elixir of vitriol, or compound syrup of phosphates.

Very much more should be said in reference to the sympathies of dentition, to do the subject full justice; but these hints must suffice, with the addition of a few words in reference to a prejudice existing in the minds of some mothers against scarifying the gums. A popular error is, that if the cut gum heals before the tooth advances through it, a hard cicatrix is formed over it, which adds greater difficulty to subsequent protrusion. This is a fallacy, as the anatomy of the parts and daily experience declare; for the gums are of a spongy nature, very unlike muscular fibre, being soft and plentifully supplied with blood-vessels; and it matters not how often the lance is used, no increased hardness is ever observed. The other popular notion that the gums should never be lanced until the teeth are near the surface, is equally fallacious, since the necessity and urgency of the operation are frequently as imperative when the teeth are deep-seated, because the capsules in which the teeth are inclosed become congested with blood, producing pressure on delicate nerves in contact with the advancing teeth, and thus occasioning the most severe pain. The free flow of dark, grumous blood, with the great relief afforded by it, is sufficient argument in favor of the remedy.

I have never known any injurious effects to arise from lancing the gums, but the cases are numerous, indeed, in which the most fatal consequences have resulted from neglect of this safe and simple act. Nay, it is sometimes necessary to scarify the gums when the points of the teeth, especially the canine and some of the molars, appear through the gum; for these sharp points become very broad towards the base, and the spaces in which the eye-teeth appear are often contracted by the teeth on either side, and they are, in consequence, cut with much more pain and difficulty.

Squinting, convulsions, water on the brain, and various spasmodic

affections, and even the sudden loss of the power of walking, are among the serious products of a neglect of a timely free incision of the gums.

No. VIII.—Convulsions—Their Cause.—Children of highly nervous temperaments, and who are consequently easily excited, are more prone to convulsions than those of a more phlegmatic temperament.

Painful dentition, producing continued irritation, is the most frequent exciting cause of convulsions in children, as is proved from the fact, that after the first set of teeth is cut, they are observed to happen much less frequently. Such prolonged irritation, in the first place, causes impairment of the powers of the stomach, and offensive secretions, in consequence, gradually accumulate in the bowels. And from imperfect digestion at this early age, a copious deposit of lithic (red) acid will sometimes be observed in the urine of the child by the mother, which she should bear in mind is often a premonitory symptom of convulsions, with a tendency to effusion of water within the brain.

The necessity of attending to the child's gums, and removing these morbid secretions, as measures for preventing convulsions, cannot be too often enforced upon the minds of mothers.

Convulsions in very young children, long before the period of dentition, may arise from the milk of the mother being of an unhealthy quality, rendered so by her habits of life, and unsuited to the delicate stomach of the infant. This is particularly liable to be the case in mothers of highly nervous temperaments with active and anxious minds, interested in their husband's affairs, speculations, etc.

Convulsions are also met with in weakly, debilitated children, with pale countenances, transparent skin, languid circulation, and the blood evidently deficient in red particles. In these cases, the brain suffers from deficiency of nervous energy, and the vital powers soon become of such low order, that very slight causes of irritation are sufficient in themselves to bring on an attack of convulsions.

When offensive secretions or indigestible matters are retained in the bowels; or when the stomach is surcharged with rich pastry, nuts, cheese, unripe fruits, etc., the brain is very apt to become sympathetically affected, and convulsions are liable to supervene. In the former case the symptoms are heaviness of the eyes, drowsiness, more or less irritative fever, and a characteristic blueness of the tongue. An active cathartic is here demanded, and is nearly all that is necessary to remove this state of oppression. In the latter cases, nothing is comparable to an emetic of ipecac to remove the contents of the stomach, and thus free the brain from sympathetic oppression.

Another cause of convulsions arises from the injudicious use of external applications alone, for the hasty cure of cutaneous diseases that have long existed; and if the disease affects the scalp, the repellent action of ointments, applied not unfrequently, gives rise to inflammation of the brain, and consequent effusion.

Mothers should not take counsel of old nurses and uneducated "doctoresses," in respect to infallible cures for various eruptions of the skin, which are to be applied locally, without suitable constitutional treatment being conjoined, of which this class of persons are ignorant. Worms, as a cause of convulsions, will be found under its proper head

THE NURSE.—The importance of the individual who forms the heading of this article, in a medical and social sense, would be sufficient excuse for introducing the subject in so domestic a work as the present; but having in more than one place already promised some

special observations on a matter of such interest to the mother of a family and the mistress of a household, we are, in a measure, committed to the duty now before us, which, in its proper place, will be followed and supplemented by the sick-room, and how to manage it.

To take the class generally, nurses may be divided into four orders, each having special differences from the other. Thus, there is the Common or Sick Nurse, the Monthly Nurse, the Wet Nurse, and the Nurse of the Nursery. However important a personage the individual of the latter order may be, or however responsible her moral duties as the deputy guardian of infancy and childhood, we shall leave her order out of the pale of our remarks, and confine ourselves exclusively to those whose members have the physical care of the old and young.

The Common, or Sick Nurse.—The following requisites of a good nurse, though given under the order of the sick nurse, are equally applicable to each of the others. In the first place, it is an absolute requisite that the nurse should possess good health, present and general, not subject to fits, bad legs, headaches, dropsiness, or hysterical attacks; that she should be strong, active, not younger than thirty or older than fifty, fifty-five at the utmost. *Before* thirty she cannot be expected to possess that firmness of character so necessary in a person undertaking such responsibilities as her duties impose, or manifest that prudence and discrimination she is so often called upon to evince; while *after* fifty she will neither have the strength and alacrity of body so requisite in a nurse, nor that tranquility of mind and equanimity of temper which should form the highest attributes of the truly professional nurse. There are two other physical imperfections the nurse should be free from; viz., she should not be lame or hard of hearing; deafness is, perhaps, one of the greatest drawbacks a nurse could possess. Not alone would such an affliction prevent her hearing the murmurs or faint solicitations of her patient, but, what would be of still more consequence, she might misunderstand the directions given her by the physician, or the purport of the patient's wishes.

The nurse should not be too tall or too short, and, more than all, she should not be fat or too bulky in person. If very tall, her height may become a source of annoyance and even antipathy to the patient, irritating his mind by the omnipresence of her figure; if too short, the nurse will be unable to reach over her patient, and perform many offices with facility and despatch, which a taller frame and longer arms would have enabled her to execute with ease and comfort; and, lastly, if fat, she will be heavy, slow, and in all probability prone to drowsiness and deep sleep.

A nurse should possess that happy medium of stature known as the middle height; be of sufficient strength to lift her patient without risk or exhaustion; of a pleasing, cheerful countenance; quick but careful in her actions, and light and noiseless in her tread; and lastly, as regards her physical requisites, her hands should be soft and pleasant to the feel.

The moral requisites of the nurse, though not so numerous, are no less imperative than those of her person. Her disposition should be naturally cheerful; her temper kind, but firm; her self-control enduring, but unshaken; and her patience without reproach, to enable her to bear, with an unruffled temper, the captiousness of sickness and the irritable exactions of the convalescent; for the nurse who forgets the discontent and fretfulness that suffering and disease so often calls forth, and, losing her prudence, enters into contentious strife with her patient, is unfit to be trusted for an hour in the room of the afflicted. The face

of the nurse should be a reflection of her mind,—contented and pleasant, and neither gloomy nor repulsive; her voice should be low and gentle, but firm. Besides these qualities, she must be tolerably educated and fully able to read, without hesitation, all the directions accompanying the medicine entrusted to her for the patient. She must be able to bear fatigue without distress, and be prepared to sacrifice her rest when the watchfulness and pain of the invalid demands her vigilance.

The dress of the nurse, especially in long and severe indispositions, is a matter also of some importance, and should never be of a dark or sombre color, but of some light and cheerful material, while tidiness and cleanliness in dress and person are indispensable requisites in the female who undertakes the duties of a general or sick nurse. It must not be supposed, because we have been particular in enumerating all the qualities, moral and physical, which a nurse should possess, that we have overlaid the figure with unattainable virtues, or are in any degree fastidious in our estimate of the average qualifications of the class to which we refer; on the contrary, a large experience and close observation of the subject has impressed on our mind the vast importance of good nursing in the successful treatment of a long or dangerous sickness; and that, in very many cases, after the turning of a certain point in the disease, the final recovery of the patient is far more in the hands of the nurse than dependent on the skill of the physician. The doctor may advise and suggest the general plan of personal attendance and lay down special dietetic rules for her guidance; but it depends upon the willingness of the nurse to obey his orders, and to her watchfulness, solicitude, tenderness of manner, and equable temper, whether those means and remedies will work beneficially for the patient's bodily and mental recovery. We feel, therefore, confident that not an item of personal qualification set down in the above requisites for a nurse is uncalled for, hypercritical, or could with justice to the patient be dispensed with.

There is hardly any vice or moral obliquity in the character of a nurse that might not be endured with impunity, rather than the self-opinionated captiousness which some inflated nurses assume. The injury such self-conceited women do to the patient, the medical man, and the happiness of a family, is sometimes excessive. They submissively receive all the directions given them by the physician, with voluble promises to follow his instructions; but no sooner has he departed, and they are called upon to execute his orders, than they begin to talk about the experience they have had in *precisely* the same case, and under the *great* Doctor So-and-So, and the *head physician* of such an institution; but "she never knowed it so treated before, and it went agin all her experience to worret the poor dear patient in sich a way." The patient, attracted by the half-muttered censure of the nurse and the reluctant performance of her duties, becomes dissatisfied with the treatment pursued, and, as a natural result of the state of his mind, the remedies produce no beneficial effect. The friends, taking the talkative nurse at her own estimate, lose confidence in the physician they have consulted, and request him to call in further advice, resolved never to trust him again with the life of a friend; while the medical man, whose practice is censured because the nurse *thinks* she has seen the same disease differently treated, is injured in credit, if not professionally ruined, by the opinionated arrogance of an ignorant and conceited woman, who, instead of being his humble assistant, becomes his enemy and traducer.

Of late years, and through the noble example of Miss Nightingale, —than whom no one better understands the requisites and benefits of good nursing,—schools have been established where females of a proper age and disposition are duly instructed in all the branches of their responsible duties, and, under a kind of diploma of efficiency, are sent forth to the public as professional nurses. Such a certificate is a recommendation that ought to cancel every word we have said on the matter; but for the thousands who require nurses, beyond the power of obtaining a duly authenticated one, our remarks stand in all their force. In conclusion of this department of the subject, it should never be forgotten that a christian, motherly, cheerful woman in a sick chamber is *more potent for good* than all the skill of medicine or surgery combined.

The Monthly Nurse.—It does not follow that the persons who fill this order of nurses should possess all the qualifications we have set down as necessary in the instance of the former, or sick nurse. As, however, the monthly nurse must, for the time her services are required, live and associate almost exclusively with the patient—the mother—for many hours of every day and night, she having no one else to converse with, it becomes a matter of some importance that the nurse should be a person of *some* information, capable, if required, of reading to the mother, and occasionally of amusing her listerner's mind with something better than the idle gossip of households in which she has formerly been engaged, or passing the hours of baby's sleep in the record of morsels of questionable scandal. In the former case, it is immaterial, so long as the nurse if of a feeling disposition, whether she is a married or unmarried woman; but in the case of the monthly nurse, it is a *sine qua non* that she should at least have *been a mother*.

Many of the persons who undertake the duties of a monthly nurse have no further qualifications for the post they apply for than than the simple fact of having been themselves mothers, or once or twice joined the group of sympathizers at the childbed of a neighbor. Small tradesmen's wives, and laundresses, tempted by the fee from a respectable establishment, are the usual applicants of this class; another set of candidates, but equally unfitted for the duties, are hospital nurses, and ordinary nurses out of employment, or incapaciated by years or infirmity for duty in a public institution. In the metropolis, and many of our large cities and towns, properly educated or professional nurses are now to be procured, and such persons consequently carry their credentials of competency in their certificate, and all the lady has to do is to look at the applicant's moral character; and as most of the items which make up a desirable personage are carried in the face, manner, and voice of the applicant, there are few mothers of families or young wives who do not possess the judgment and tact to translate them truly. A cheerful countenance, a pleasing voice, cleanliness, activity, and a regard—*real*, not assumed—for children—these are the characteristics which an intelligent woman may, by the use of her eyes, and a little conversation, easily satisfy herself upon. The only drawbacks to the above satisfactory qualities or the inquiries to be made as to sobriety, and whether the otherwise excellent nurse is likely to be infested in her temporary home by frequent bevies of children,—a circumstance which no prudent mother, for her infant's sake, would tolerate.

In the country, where professed nurses are only to be procured at great expense, the difficulty the mother encounters to obtain a nurse, with moderate qualifications for her duties, is often very great; clean-

liness, motherly solicitude for her charge, and willingness to perform all that is expected of her as respects attention on the mother and infant, will form in general the utmost limit of her capabilities.

If she is given to gossiping with the servants, addicted to afternoon slumbers, and *occasional drops of spirits for the colic which has afflicted her at times for life*, these, and probably a few others, if they cannot be corrected by keeping her exclusively to the sick-room, allowing the afternoon nap when the baby is safe in the cradle or on the mother's lap, and by daily anticipating the *occasional* colic by a glass of wine or a medicinal quantity of spirits,—and if, in fact, these evils cannot be modified, they must be often endured for the sake of attention to the infant, cheerfulness at night time, when the rest is often broken, and by her kindness to the other children whenever admitted to see mamma and the new brother or sister,—a point upon which nurses *can be* very captious and disagreeable, while her consideration and good temper in that respect is always sure to be gratefully received by the mother. As in seven cases out of ten the nurse's duties with the mother expire in a great measure with the first week, and it is for the infant that she is especially engaged, and as nurses are apt to be very exacting in their mode of management, especially with *young* mothers, they are often compelled to submit, against their better judgment, to what they feel to be bad or hurtful.

No lady of delicate nature can bear to see her infant subjected to the rough but well-meant manipulations endured by the child of a ploughman; no source of maternal distress being more frequent than that of the daily washing, when, for the best part of an hour, through the constant protest of cries and shrieks, the infant's tender body is exposed and irritated by the nurse's hard, rough hands, as she needlessly turns it from back to front, and from side to side, through a ceaseless jolting of her bony knee.

Much—nearly all—of this distressing crying might be avoided by *tender handling*, care, and sufficient *time* for the operations of washing and dressing, and thus what is made a torment to the infant converted into a pleasure.

If the articles, "Advice to Mothers," "Infant," "Labor," and a few others in this work are consulted, the young mother will learn how to perform all the duties appertaining to the dressing of the child, so as to be able to practice a more agreeable method when she undertakes those responsibilities herself. It is almost unnecessary to observe that a woman who takes *snuff* should never be allowed to dress an infant; that is a self-evident vice easily guarded against. But what the mother has more reason to dread, because always done in secret, is the practice too often adopted by nurses, to save their rest and calm the mother's fears, *of dosing the infant with some narcotic cordial.* The danger of the practice cannot be too severely reprobated, and it will often tax the mother's utmost penetration to detect how and when it is done. Infants never cry without a cause, and one of the greatest mistakes a nurse makes is to suppose it cries for want of food. Thirst, however, is far more frequently the cause of its complaining than flatulence, want of food, or any other reason; but even if the nurse suspected such to be the case, she would probably shrink with horror from giving the little sufferer the *only remedy* its nature craves—A FEW TEASPOONS OF WATER SLIGHTLY WARMED.

The Wet Nurse.—In selecting a person to take the management of an infant the mother cannot or does not mean to rear, whether from the birth, or some months afterwards, care should be taken that

the nurse's infant is as near to the age of the child she is to suckle as possible. In the selection of such a nurse, the medical man generally takes all responsibility, both as respects her physical health and moral character; it is, therefore, unnecessary in this place to enter upon that part of the subject.

The wet nurse should live in the house of her employer, be under the supervision and control of the family doctor, her diet being regulated by what he deems the best suited to her health and constitution. In general, a full diet of animal food, with eggs, puddings, bread, and potatoes, with from two to three pints of half-and-half, stout, or porter a day, is the usual order in which the wet nurse's dietetic scale is allowed.

SICK-ROOM, MANAGEMENT OF.—So many subjects of importance are embraced under this general heading, it will be necessary, in treating of this article, to arrange each according to its natural sequence, as the room and furniture, cleanliness, ventilation, attendance on the patient, duties of the nurse, etc. Before proceeding *seriatim* with our theme, it should be premised that though in a majority of cases it may be impossible for heads of families so to arrange matters for the invalid as implicitly to follow all the plans and details laid down in the present article, want of space, or of means, preventing compliance with the whole of the following instructions; yet by laying before the eye of the reader an accurate description of the requisites for an invalid's bedroom, and the management of a model sick chamber, the means at hand, and the appliances within the reach of the family, may be turned to to the best account, and thus, by a little consideration and ingenuity, inferior articles may be made to do as efficient service as the best and most expensive of modern improvements. We have already, in more than one place in this work, observed that good nursing is as necessary to the recovery of a patient as skill and attention on the part of the physician; indeed, it is often more so, as in many instances nature is so beneficently active in restoring the powers prostrated by disease, that in many cases diet and regimen, with judicious nursing, unaided by medical skill or physic, will alone carry the patient through a lengthened illness to perfect health and strength. Good nursing, however, besides personal solicitude and care, demands means and appliances to render the nurse's attention fully beneficial, and of those means or passive agents it will now be our duty to speak.

The sick chamber, or bedroom of the patient, is a subject that demands due consideration. In the first place, it should be of considerable size, and, if the illness is likely to be of some duration, a large room should be appropriated for the purpose. The room, if possible, should have a northern aspect, so as to protect it from the glare of the mid-day sun, and, if it can be so arranged, the apartment should abut from the house, so as to keep the patient from the noise and bustle of the family, and be equally removed from the sound of the door bell, and from the clatter of the scullery, or the smell of the kitchen. The room should have a fire-place, and clean-swept chimney; the window should have a movable top-sash, and should either face the door, or the door should be on a line with the fire-place, to insure a complete draught, on which account the chimney-board, if one has been used, should be removed. The color of the walls is a matter of very considerable importance. Green, especially deep or bright green, is always to be avoided; equally objectionable, though not equally hurtful, is a paper with a bold staring pattern, with prominent colors. A small geometrical pattern of squares, diamond, or flowers, in hori-

zontal or diagonal lines, is equally to be avoided, and, if possible, a paper selected of a pale, unobtrusive color, and with such figures on it as the eye may contemplate without perplexity, fatigue or irritation. The importance of attending to these points is well known to every medical man who has had any practice in the treatment of fevers. In the first case, the greens indicated are always giving off fumes of arsenic, which are hurtful, if not dangerous; and in the other, the brain, in certain stages of the fever, becomes irritated by the positive character of the paper, or exhausted by fruitless attempts to count the number of figures or flowers in the several lines. The carpet, bed-curtains, vallance, and all clothes, dresses, or articles of wollen fabric, are to be removed from the apartment, and only as much furniture as is actually required for the use of the patient retained in the room, such as the bed, a few chairs, two tables, a night-lamp, washing stand, and a strip of canvas or sacking in front of the bed, or in the line of the doctor or nurse's tread. The bed—a French bedstead being the best—should be placed with the head a little way from the wall, accessible on both sides, and in such a situation as to be entirely removed from the current of air betwen the door and window, or the window and fire-place. The bed on which the patient lies is also a matter of consequence; wool mattresses are in many cases too hard, and feather beds produce great heat, and often become knotty and hard. The spring stuffed mattress is now frequently ordered by physicians as the best article, but the French spring bed, composed of spiral wires, by yielding to every motion of the body, is undoubtedly the best article for the invalid, especially if covered with a thin hair mattress. Air and water beds are also occasionally employed, but their great expense acts as a barrier to their general adoption; the use of the latter article, unless in the hands of a skillful nurse, is apt to be attended with great risk, as from the greater weight of the hips and trunk, that portion of the body sinks throwing the legs and head forward. To obviate this objection to Dr. Arnott's otherwise admirable water bed, a thin hair mattress and bolster should be laid over the top and head, when every motion of the patient will be met by a corresponding motion of the fluctuating medium beneath him. The amount of bedclothes employed must be left to the judgment of the nurse, to the season of the year, the nature of the disease, and the feelings of the patient. Air pillows and cushions should always form a portion of the bed-furniture, the first for ordinary purposes of rest, and the latter to relieve particular parts of the body from undue pressure, and in cases of bed-sores. A pole, or piece of lancewood, should be placed across the framework of the top of the bed, to which a short sling, containing a round piece of wood for the hands, should be attached, so that the patient may be able to raise himself in the bed without always being dependent on the assistance of the nurse. The next item of consequence is an easy chair with a movable back, in which the patient can recline or sit erect, according to the elevation or depression of the back and foot-board. There should also be a sofa or couch in the room, on which he can be placed while the bed is being made, or at any time for change. Two tables are also necessary—a small one, to stand near the bed, to contain the drink, medicine, or fruit in common use, with the glasses and vessels out of which each article is to be taken; and a large table, with an easily opening drawer, at the end of the room. On this table should be arranged all the medicines not in constant use,—the lotions, collyriums, and external applications by themselves at one side, and the internal remedies at the other. A 2-ounce graduated glass measure,

and a drop or minim measure; a china or white delf cup, with a spout, and covered half over the top, for giving medicine or drink to the patient when lying down, with clean glasses, and a spoon of each of the three sizes, should be arranged as a barrier between the external and internal medicines, while in the drawer should be placed lint bandages, adhesive plaster, thread, pins, and scissors, any ointment or cerate in use, and a spatula; and by themselves, in one compartment, the prescriptions as they are returned from the chemist. A green or slate-colored calico blind should be attached to the window, to darken the room when required. The night-lamp, to afford light, and heat food or water, should always be in readiness, which, with a couple of small white vessels, made for the purpose, to hold the expectoration in cases of consumption, can be arranged on the washing stand. These, with a sponge, towels, soap, and water, are almost everything which a sick-room can require, except on special occasions.

Cleanliness is one of the most imperative requisites of a sick-room and, to be effective for good, must be carried out in every particular. The floor should be carefully swept every morning, the strip of canvas, used to deaden the tread, well shaken in the air before being relaid; the glasses, cups, and spoons washed and and dried after every time of use; every discharge from the body, plasters, dressings, or dirty bandages, are to be instantly taken from the room, and no utensil brought back until well cleaned and dried. The temperature of the sick-room is always a matter of considerable importance, and that the degree of proper warmth may always be understood and maintained, a thermometer should invariably form a part of the appurtenances of the sick-room, the instrument being placed against the wall in such a position that the nurse's eye may frequently notice its silent admonitions. Though 60° Fahrenheit is regarded as the standard degree of temperature, it is often desirable to reduce that amount to 59° or 58°, or indeed even lower in some cases of hemorrhage. To effect this, a strong current must be established, either by partially opening the door or window, or by lighting a small fire for few minutes in the grate, and, lastly, by means of evaporation to be presently described. When it is necessary to raise the temperature above 60°, the strong currents are to be suspended for a time, the door and window securely closed, and a fire lighted in the grate, and the reading of the thermometer carefully attended to till the desired temperature has been reached, care being then taken to prevent the heat increasing or fluctuating.

Ventilation.—A free and perfect ventilation is one of the most necessary properties of the sick-room, as on it depends so much of the comfort of the patient, as well as much of his hopes of a final recovery. To convey a clearer idea of the importance of good ventilation to the welfare of the invalid, it will be sufficient if in this place we mention that a healthy man enclosed in a room, requires FOUR CUBIC FEET of fresh air *each minute* for the due performance of all his functions, and that he vitiates, or renders poisonous, about A HUNDRED AND THIRTY CUBIC INCHES *every minute*, by expiration from the lungs and skin. If this fact is borne in mind, the absolute importance of an abundance of pure air to the patient will become still more evident, especially as, in some diseases, an increased amount of oxygen becomes a vital necessity. Independent of supplying an abundance of pure air to the patient, ventilation is of the utmost consequence, not only in purifying the room, but in carrying from the atmosphere that surrounds the sick person those minute particles of morbific matter which

are always given off from an unhealthy body, and, especially in certain contagious diseases, load the air with their poisonous particles, and which, if imbibed into the lungs of a healthy person, may there germinate into another poisonous disease, besides being re-absorbed by the invalid himself, thus keeping alive a malady which, by exhalation and free ventilation, might have been weakened and greatly benefited. The two great sources of ventilation are the window and the chimney; the one carrying off the upper stratum of impure air, and the other those heavier gases and impure atmosphere which specific gravity keeps floating over the surface of the floor. As the door in both instances is the direction from which the current of fresh air comes, care should be taken that no mat inside or outside impedes the free access of air, and should the door fit tightly above to the lintel, a plane should be passed along the top, to allow of the entrance of a stream of air from the passages beyond. The *top* sash of the window is only part that should be opened, and that but for the space of a few inches, merely sufficient to cause a strong draught, and this only from time to time, as occasion may require.

Should the window not open from above, a piece of the top of each corner pane should be broken out, and a slip of paste-board nailed to the frame above, to hang down like a valve over the broken glass, and which can be pushed up or let down, according as ventilation is required. The effluvium which sometimes pervades a sick chamber, and which is quite as hurtful to the patient as it is offensive to the healthy person who imbibes it, cannot be overcome by mere ventilation, as the draught necessary to do so in a reasonable time might be of serious consequences to the patient; nor must any attempt be made to overpower one smell by the establishment of another, such as by the burning of brown paper, feathers, sprigs of lavender, pastiles, or aromatic vinegar,—articles which are all, except pastiles, excellent in their place to refresh the atmosphere of a sick chamber at proper times, but become most objectionable when offensive odors are present. In all such cases, disinfectants alone should be used, and as chloride of lime is so extremely cheap, there can be no excuse for not employing it on all occasions. A teaspoon of the chloride, dissolved in half a pint of water, and in the following manner, will soon correct all unpleasant smells. Having dissolved the chloride of lime in a basin, a napkin is to be dipped in the solution, roughly squeezed out and then suspended on a line between the door and window, and the rest of the solution poured into a couple of saucers, and placed on the floor for about a quarter of an hour, when the ventilator being opened for a few minutes will leave the air of the chamber perfectly pure. Linen rags, or a towel wetted in chloride of zinc or tin, or the nitrate of lead, and waved about the room for some time, will answer the same purpose, and equally as well.

Attendance on the Patient.—It cannot be too strongly impressed on the mind of all who may be called on to minister to the wants of the sick, that every attention given, every service rendered, should be performed with the least possible noise and demonstration,—the step should be light and noiseless, the voice low and kind, and the service, whatever it may be, rendered with gentleness, care, and dispatch, but in no hurry or officious haste. Rattling of windows, slamming of doors, creaking shoes, sudden noises, exclamations or fidgeting, monotonous sounds—as the ticking of a watch or clock, the rustling of dresses, or the leaves of a book—are all to be guarded against as things of serious import in certain conditions of the nervous system; on the same

amount, a restless or over-officious nurse—one who moves much or unnecessarily about the room—is likely to be more injurious than useful. Care must be also taken not to admit more than two visitors at one time to the bedside, and any loud-speaking or boisterous-mannered friend must be strictly prohibited. In visiting a sick friend, the person admitted should ask as few questions as possible, avoid the mention of any distressing intelligence, eschew all medical themes, and confine his conversation to any light and agreeable intelligence; being always careful not to weary the patient by more than a few minutes at a time of his company. In all cases of a healthy person visiting a sick one, it is of the utmost consequence that he should place himself, whether standing or sitting, in such a position that the air from the door or window may come from *behind the visitor* to the patient, and *not from the patient* to the friend; he should also avoid leaning over the bed, or inhaling the breath of the invalid, or indeed of coming in too close contact with the clothes or person of the patient The personal cleanliness of the patient, is a matter of very great importance; the face, neck, and arms should be well washed, and the skin afterwards rubbed thoroughly dry with a fresh towel every morning; and as great refreshment is experienced by washing the face and hands occasionally during the day, such means of affording relief and comfort should never be forgotten; the clothes worn during the night should never be allowed to remain on the body in the day, but as soon as the morning washing is over, clean clothes should be put on, care having first been taken to air thoroughly all linen before it is used, that which is taken off being well aired before being put away for the use of the night. The importance of attending to the thorough airing of every article before being put on the patient's body will be understood when we state, that so great and continuous is the evaporation always taking place from water, the surface of the walls, and the bodies of the patient and nurse, that a night-shirt kept in the sick chamber for twenty-four hours, and weighed before and after drying, was found to have lost four ounces, or *a quarter of a pound in weight*, by the driving off of that amount of water, absorbed by the night-shirt in one day and night. From this it will be seen what a large proportion of watery vapor is taken up in a few hours by the different items of our daily wear, the amount retained by linen and cotton being, of course, very much less than that taken up by woolen and more porous garments. Where the whole of the patient's body cannot be washed every day, the lower extremities, and as much as possible of the rest of the trunk, should be freely rubbed with dry towels.

Duties of the Nurse.—Of the moral and physical qualities of the nurse we have already spoken, under the head of "Nurse," which see; it only now remains for us to point out the duties which devolve upon that individual when in charge of the sick-room, and entrusted with the responsibility of the patient during the absence of the medical man. In the first place, the nurse should regard herself, and be so considered by the relatives and friends, as the doctor's *locum tenens*, and invested with absolute control over the patient and sick-room during his absence. It is to the nurse, or that member of the family who officiates as such, that the physician conveys his instructions; to him she makes all reports, and to her general direction he commits the well-being of his patient during that long portion of every day in which he is necessitated to absent himself from the bedside of the invalid. To the nurse's judgement is left the duty of preventing too many visitors from seeing the patient at one time, or in one day, and

of taking care that he is in no way tampered with, and nothing in the way of food, fruit, or drink given to him, on any pretence whatever, if opposed to the regulations laid down by the doctor. A few spoonfuls of what may be deemed a grateful and harmless substance, to those who plead for its being given, may, if it should not prove actually hurtful, counteract the effective operation of some medicine on which the physician has relied for beneficial results. These, then, are two important duties devolving on the nurse, and which she should never allow herself to be overruled in executing. The dress of the nurse, besides being, like her person, always scrupulously clean, should be of some unobtrusive color, and of a material that will make no rustling noise when she goes about her duties. The cleanliness of the room, with that of the glasses, cups, and every utensil or article used, cannot be insisted on too forcibly; she should range all the bottles on the reserve table, as we have directed, with the label of each turned outwards, and make a practice of never giving any medicine without first *looking at the direction.* She should have a small slate always at hand, on which to make notes of any special instruction given by the doctor, or of facts that may have occurred in his absence. She must remove to another room all that passes from the patient, which, unless kept for after inspection, should be directly emptied; have the vessel washed out, rinsed with chloride of lime, and dried before returning them to the room. If the secretions are to be kept, she must be careful that nothing is thrown in, or mixed with them, as their entire character may be altered by emptying medicines, tea, or other articles on either.

The personal cleanliness of the patient is one of the nurse's first duties, for, besides the daily washing of the face, neck, and arms, it sometimes affords him great comfort to have the same operation repeated in the evening, and if the skin is washed with warm water and soap, and then properly dried, there is no fear of his taking cold If the patient can bear the fatigue, clean linen night and morning should be put on, each change being properly aired. When he is able to lie on the sofa for a few hours, or sit up in the easy chair, the nurse should carry away all the bedclothes, and expose them in another apartment to a freer ventilation. When the patient—unable to bear the fatigue of removal to the sofa—has to sit up in bed, the nurse must contrive some support for his back; and for this purpose a child's chair placed at the head of the bed, and protected by one or two pillows, will afford a comfortable rest for the back, when, if the lately invented bed-table which, attached to the side of the bed, and extending its leaf over the clothes, can be procured, he may sit for hours, and take his meals with tolerable comfort. When the patient has to be moved, and the nurse is unable to carry him bodily from the bed to the sofa, she and another should make a chair of their arms, and, lifting him at the same time, remove their burden with as little jar or fatigue as possible. When, from exhaustion, this method is impossible, the patient must be taken up bodily by four persons in the sheet on which he lies, and in that manner transported from one bed to another. There is one most imperative duty of the nurse in cases of long sickness, where the invalid is compelled to remain long in one position, and that is a daily and accurate inspection of the skin of the back, so as to be able to detect the first approach of injury from pressure, and so guard against the serious consequences of bed-sores; this she must effect by dusting the part that looks angry with violet powder, and, by placing air cushions under the body, relieve the place affected from further pressure. The nurse should also know, that in inflammatory diseases, if

the first dose of medicine produces sickness, she *must not* therefore withhold the second; that if a sudden emetic is wanted, a teaspoon of salt or a tablespoon of mustard, in half a pint of warm water, will produce vomiting; that to increase the action of the saline aperients, draughts of water are necessary; while to promote perspiration, warm drinks, extra bedclothes, and hot water to the feet are required. Of all the qualities of a good nurse, however, that of being willing to follow implicitly the directions of the medical man is unquestionably the best, and she who will conscientiously do this, may be safely trusted in all else.

WEANING.—The proper time when the infant should be taken from the breast, and subjected to artificial dietary, is generally a subject of some anxiety to mothers. The exact time when this change should take place must, however, always be an open question, depending on the strength or weakness of the child, and the health and capability of the mother for the duty of a wet nurse. When mother and child are both in a fair condition of health, the general time of weaning the infant is between the ninth and twelfth month; should the child, however, be very backward with its teeth, and have only cut one or two by the latter period, the time of weaning should be postponed for a few weeks or months. As a general rule, when nature has placed a sufficient number of teeth in the infant's mouth to enable it to mumble the soft aliment on which it is fed, the time has arrived to make it independent of its nurse. All prudent mothers, however, will gradually anneal their infants to the change by beginning to feed them once, twice, and finally three times a day for some few weeks before absolute weaning, at the same time *reducing* the number of times of daily *suckling;* by this means the process is made easy and gradual, and the children are in a great measure spared the distress consequent on an abrupt change.

Some mothers, in the hope of preventing another pregnancy, are in the habit of keeping their infants at the breast till they are old enough to ask for it; this is a great mistake, and is certain to act injuriously on the health of the parent. See "Advice to mothers, and Infants."

WETTING THE BED.—This accident, so frequently occurring to children, and so well known to mothers, demands careful and vigilant attention. Parents and nurses have hitherto regarded this as a bad and careless habit of the child's and one rather demanding reprehension and correction than inquiry or medical investigation; this, however, is often a grave mistake, as the child in its sleep can no more avoid the involuntary discharge than it can resist the lethargy of sleep. The CAUSE of this incontinence of urine in children arises from two sources in particular—the first is the peculiar alkaline condition of the water, which, acting like a corrosive lye on the coats of the bladder, excites that organ to the involuntary action which results in the passage of the urine; the second is the presence in the bowels, particularly in the *rectum*, of a number of worms, which, irritating the nerves of the part, sympathetically affect the bladder directly above, which receives some of its nerves from the same *plexus*. Crude fruit, or other causes of irritation in the bowels, may produce the same result, though the above two are the most frequent.

Instead, therefore, of alarming the child by the fear of punishment, the mother will do well to discover as far as possible which of these causes induces a child formerly cleanly in his habits to commit this nocturnal *faux pas*. If it should proceed from an alkaline state of the

urine, the TREATMENT will consist in giving vinegar and pickles with the meals, tamarinds and water, and acidulated drinks, with oranges and fresh acid fruits; and if the patient is at all weakly, the subjoined tonic mixture.

Take of infusion of quassa, 6 ozs.; quinine, 6 grs.; diluted sulphuric acid, 30 drops. Mix; a dessert or tablespoon to be given three times a day, in water, to children from five to ten years of age. When the accident proceeds from worms, the cause must be removed by the means recommended under "Worms," which see.

TANNER'S, SHOE, AND HARNESS MAKER'S DEPARTMENT.

COLORS.—Best Color for Boot, Shoe, and Harness Edge, and Ink which Cannot Freeze.—Alcohol, 1 pt.; tincture of iron, 1½ ozs.; extract of logwood, 1 oz.; nutgalls, pulverized, 1 oz.; soft water, ½ pt.; mix. Or:

2. Take alcohol, 1 pt.; extract of logwood and tincture of iron, of each, 1 oz.; nutgalls, pulverized, 1 oz.; and sweet oil, ½ oz.; mix.

I have found shoemakers using these colors, each thinking he had the best color in the world. The sweet oil is believed to prevent the hot iron from sticking, and to make a better polish.

The first one makes a very passable ink for *winter* use, by carrying a quick hand to prevent it from spreading in the paper, from the presence of the alcohol, which, of course, is what prevents it from freezing, and that is the only argument in favor of it as an ink for writing purposes.

3. Cheap Color for the Edge.—Soft water, 1 gal.; extract of logwood, 1 oz.; and boil them until the extract is dissolved; then remove from the fire and add copperas, 2 ozs.; bi-chromate of potash and gum arabic, of each, ½ oz.; all to be pulverized.

This makes a cheap and good color for shoe or harness edge, but for cobbling or for new work, upon which you do not wish to use the "hot kit," but finish with heel-ball, you will find that if, as you pour this out into the bottle to use, you put a table-spoon of lamp-black to each pint of it, it will make a blacker and nicer finish. It makes a good color for cheap work, but for fine work, nothing will supersede the first colors given. This also makes a very good ink for *writing* purposes, if kept corked to avoid evaporation, which makes it gummy or sticky. See also "Grain Side Blacking."

4. Sizing for Boots and Shoes, in Treeing-out.—Take water, 1 qt., and dissolve in it, by heat, isinglass, 1 oz., adding more water to make up for evaporation; when dissolved, add starch, 6 ozs.; extract of logwood, bees-wax, and tallow, of each, 2 ozs.; and continue the heat until all is melted and well mixed. Rub the starch up first, by pouring on sufficient boiling water for that purpose.

It makes boots and shoes soft and pliable, applying it when treeing out, and is especially nice to clean up work which has stood long on the shelves.

5. Water-Proof Oil-Paste Blacking.—Take camphene, 1 pt., and put into it all the India-rubber it will dissolve; when dissolved, add currier's oil, 1 pt.; tallow, 6 lbs.; lamp-black, 2 ozs.; mix thoroughly by heat.

This is a nice thing for old harness or carriage tops, as well as for boots and shoes. Or you can dissolve the rubber in the oil by setting them in rather a hot place for a day or two; and save the expense of

camphene, as that is of no use only as a solvent to the rubber. There are those, however, who do not like to use the *rubber*, thinking it rots the leather; then use the following:

6. Water-Proof Paste, without Rubber.—Take tallow, 1 lb.; bees-wax, ¼ lb.; castor or neat's-foot oil, ½ pt.; and lamp-black, ½ oz.; mix by heat. Or:

7. Neat's-foot oil, brought to a proper consistence with a little bees-wax and tallow; colored with lamp-black, will be found proof against snow or water.

8. Some, however, may prefer the following manner of preserving their boots and shoes, from a correspondent of the *Mechanics' Gazette;* but if they do, the boots must be made large, from the fact that the preparation has a tendency to shrink the leather. He says: "I have had only three pairs of boots for the last six years, (no shoes,) and I think I shall not require any more the next six years to come. The reason is, that I treat them in the following manner:

"I put 1 lb. of tallow and ½ lb. of resin in a pot on the fire; when melted and mixed, I warm the boots and apply the hot stuff with a painter's brush until neither the *sole nor the upper* will soak in any more. If it is desired that the boots should immediately take a polish, dissolve 1 oz. of wax in spirits of turpentine, to which add a teaspoon of lamp-black. A day after the boots have been treated with the tallow and resin, rub over them this wax in turpentine, but not before the fire.

"Thus the exterior will have a coat of wax alone, and will shine like a mirror. Tallow or any other grease becomes rancid, and rots the stitching as well as the leather, but the resin gives it that antiseptic quality which preserves the whole. Boots and shoes should be made so large as to admit of wearing cork soles. Cork is so bad a conductor of heat, that with it in the boots, the feet are always warm on the coldest stone floor."

9. Black Varnish for Edge.—Take 98 per cent. alcohol, 1 pt., shellac, 3 ozs.; resin, 2 ozs.; pine turpentine, 1 oz.; lamp-black, ¼ oz.; mix, and when the gums are all cut, it is ready to use; but bear in mind that low proof alcohol will not cut gums properly, for any varnish.

This, applied to a boot or shoe edge, with a brush, gives it the shining gloss, resembling much of the eastern work. It is also applicable to wood or cloth requiring a gloss, after having been painted.

10. Varnish for Harness, the Best in Use.—Take 98 per cent. alcohol, 1 gal.; white pine turpentine, 1½ lbs.; gum shellac, 1½ lbs.; Venice turpentine, 1 gill. Let these stand in a jug in the sun or by a stove until the gums are dissolved, then add sweet oil, 1 gill, and lamp-black, 2 ozs; rub the lamp-black first with a little of the varnish.

This varnish is better than the old style, from the fact that its polish is as good, and it does not crack when the harness is twisted or knocked about.

If you wish a varnish for *fair* leather, make it as the above, in a clean jug, but use no lamp-black. The pine turpentine and sweet oil make it pliable, yet not sticky.

TANNING, BLACKING, AND FINISHING.—Process for Calf, Kip, and Harness, in from Six to Thirty Days.—For a 12 lb. calf-skin, take terra-japonica, 3 lbs.; common salt, 2 lbs.; alum, 1 lb.; put these into a copper kettle with sufficient water to dissolve the whole by boiling.

The skin, or skins, will first be limed, haired, and treated in every

way as for the old process; then it will be put into a vessel with sufficient water to cover it, at which time you will put in one pint of the composition, stirring it well; adding the same amount each night and morning for three days, when you will add the whole; handling two or three times daily, all the time tanning; you can continue to use the tanning liquid by adding half the quantity each time, of new liquor, and by keeping these proportions for any amount, and if you desire to give the leather the appearance of bark color, you will put in one pound of Sicily sumac.

Kip skins will require about twenty days, light horse hides for harness, thirty days to make good leather; while calf skins will only require from six to ten days at most. The japonica is put up in large cakes of about one hundred and fifty pounds, and sells, in common times, at about four cents per pound, in New York.

Byron Rose, a tanner, of Madison, Ohio, says that one quart of oil of vitriol to fifty sides of leather, with the japonica and alum, as above, leaving out the salt, will very much improve it; the acid opens the pores, quickening the process without injury to the leather.

2. Canadian Process.—The Canadians make four liquors in using the japonica:

The FIRST liquor is made by dissolving, for 20 sides of upper, 15 lbs of terra-japonica in sufficient water to cover the upper being tanned. The SECOND liquor contains the same amount of japonica, and 8 lbs. of saltpetre also. The THIRD contains 20 lbs. of japonica, and 4½ lbs. of alum. The FOURTH liquor contains only 15 lbs. of japonica, and 1½ lbs. of sulphuric acid; and the leather remains 4 days in each liquor for upper; and for sole, the quantities and time are both doubled. They count 50 calf skins in place of 20 sides of upper, but let them lie in each liquor only 3 days.

3. Deer Skins—Tanning and Buffing for Gloves.—For each skin take a bucket of water, and put into it 1 qt. of lime; let the skin or skins lie in from 3 to 4 days; then rinse in clean water hair, and grain; then soak them in cold water to get out the glue; now scour or pound in good soap suds, for half an hour; after which take white vitriol, alum, and salt, 1 table-spoon of each to a skin; these will be dissolved in sufficient water to cover the skin, and remain in it for 24 hours; wring out as dry as convenient; and spread on with a brush ½ pt. of currier's oil, and hang in the sun about 2 days; after which you will scour out the oil with soap suds, and hang out again until perfectly dry; then pull and work them until they are soft; and if a reasonable time does not make them soft, scour out in suds again as before, until complete. The oil may be saved by pouring or taking it from the top of the suds, if left standing a short time. The buff color is given by spreading yellow ochre evenly over the surface of the skin, when finished, rubbing it in well with a brush.

The foregoing plan was pursued for a number of years by a brother of mine, and I have worn the gloves and know the value of the recipe; but there are plans of using acid, and if the quantity is not too great, there is no reason in the world why it may not be used; the only caution necessary is to see that the strength of acid does not kill the nature of the leather; in proper quantities it *tans* only, instead of destroying the fibre. I will give a couple of the most valuable methods:

4. Tanning with Acid.—After having removed the hair, scouring, soaking, and pounding in the suds, etc., as in the last recipe, in place of the white vitriol, alum, and salt, as there mentioned, take oil

of vitriol (sulphuric acid) and water, equal parts of each, and thoroughly wet the flesh side of the skin with it, by means of a sponge or cloth upon a stick; then folding up the skin, letting it lie for 20 minutes only, having ready a solution of sal-soda and water, say 1 lb. to a bucket of water, and soak the skin or skins in that for 2 hours, when you will wash in clean water and apply a little dry salt, letting lie in the salt over night, or that length of time; then remove the flesh with a blunt knife, or, if doing business on a large scale, by means of the regular beam and flesh-knife; when dry, or nearly so, soften by pulling and rubbing with the hands, and also with a piece of pumice-stone. This, of course, is the quickest way of tanning, and by only wetting the skins with the acid and soaking out in twenty minutes, they are not rotted.

5. Another Method.—Oil of vitriol, ½ oz.; salt, 1 teacup; milk sufficient to handsomely cover the skin, not exceeding 3 qts.; warm the milk, then add the salt and vitriol; stir the skin in the liquid 40 minutes, keeping it warm; then dry and work it as directed in No. 4.

6. Tanning Sheep-Skins, applicable for Mittens, Door-Mats, Robes, etc.—For mats, take two long-wooled skins, make a strong suds, using hot water; when it is cold wash the skins in it, carefully squeezing them between the hands to get the dirt out of the wool; then wash the soap out with clean cold water. Now dissolve alum and salt, of each half a pound, with a little hot water, which put into a tub of cold water sufficient to cover the skins, and let them soak in it over night, or twelve hours, then hang over a pole to drain. When they are well drained, spread or stretch carefully on a board to dry. They need not be tacked if you will draw them out several times with the hand, while drying. When yet a little damp, have one ounce, each, of saltpetre and alum, pulverized, and sprinkle on the flesh-side of each skin, rubbing in well; then lay the flesh-sides together and hang in the shade for two or three days, turning the under skin uppermost every day, until perfectly dry. Then scrape the flesh-side with a blunt knife, to remove any remaining scraps of flesh, trim off projecting points, and rub the flesh-side with pumice or rotten stone, and with the hands; they will be very white and beautiful, suitable for a foot mat, also nice in a sleigh or wagon of a cold day. They also make good robes, in place of the buffalo, if colored, and sewed together. And lamb-skins, (or sheep-skins, if the wool is trimmed off evenly to about one-half or three-fourths of an inch in length,) make most beautiful and warm mittens for ladies or gentlemen.

7. Tanning Fur and other Skins—Fifty Dollar Recipe.—FIRST,—Remove the legs and other useless parts, and soak the skin soft; then remove the flesh substances and soak in warm water for an hour; now:

Take for each skin, borax, saltpetre, and glauber-salt, of each, ½ oz., and dissolve or wet with soft water sufficiently to allow it to be spread on the flesh-side of the skin.

Put it on with a brush, thickest in the centre or thickest part of the skin, and double the skin together, flesh-side in, keeping it in a *cool* place for twenty-four hours, not allowing it to freeze, however.

SECOND,—Wash the skin clean, and then:

Take sal-soda, 1 oz.; borax, ½ oz.; refined soap, 2 ozs.; (Colgate's white soap is recommended as the best, but our "White Hard Soap" is the same quality); melt them slowly together, being careful not to *allow them* to boil, and apply the mixture to the flesh-side as at first—*roll up* again and keep in a warm place for 24 hours.

THIRD,—Wash the skin clean, as above, and have saleratus, two ounces, dissolved in hot rain water sufficient to well saturate the skin; then :

Take alum, 4 ozs.; salt, 8 ozs.; and dissolve also in hot rain water; when sufficiently cool to allow the handling of it without scalding, put in the skin for 12 hours; then wring out the water and hang up, for 12 hours more, to dry. Repeat this last soaking and drying from 2 to 4 times, according to the desired softness of the skin when finished.

LASTLY,—Finish by pulling, working, etc., and finally by rubbing with a piece of pumice-stone and fine sand-paper.

This works admirably on sheep-skins as well as on fur-skins, dog, cat, or wolf-skins, also, making a durable leather, well adapted to washing.

A man in our county paid fifty dollars for this recipe, and has made his money out of it many times. It is very valuable.

8. Tanning Deer and Woodchuck Skins for Whips, Strings, etc.—Prepare the skin according to the last recipe; then :

Take oil of vitriol, 1 oz.; salt, 1 pt.; milk, 3 qts.; mix.

Now dip the skin in warm rain water, having sufficient saleratus in it to make it rather strong, or as in the THIRD head of last recipe, and work and squeeze it well for a few minutes, then wring dry as convenient and put it into the vitriol mixture for fifty minutes, stirring all the time; now wring out and soak a while; and finally dry and work until soft.

9. Grain-Side Blacking, for Ten Cents a Barrel.—Take a barrel and put into it quite a quantity of old iron, cast or wrought, then fill nearly full of soft water, and add 1 pt. of oil of vitriol; stir it up well, and in a month or two you have just as good blacking for the grain-side as could be made by using vinegar in place of water.

This makes good blacking for boot, shoe, or harness edge, also. The acid used is so trifling that no injury will arise to the leather.

Tanners will, of course, first apply the urine before applying the blacking, saving from ten to twenty dollars yearly, in this way, instead of the old plan of using vinegar.

10. French Finish, for Leather.—Take a common wooden pail of scraps, (the legs and pates of calf-skins are the best,) and put a handful, each, of salt and pulverized alum amongst them, and let them stand three days; then boil them until you get a thick paste. In using you will warm it. In the first application, put a little tallow with it, and for the second, a little soft soap, and use it in the regular way of finishing, and your leather will be soft and pliable, like the French calf-skin.

I have no doubt that this would make a good preparation for shoemakers to use in treeing-out, leaving a soft pliableness, not otherwise obtained.

11. French Patent Leather.—The process which has been so successfully adopted by the French artizans in glazing leather, so as to give it the repute for superior quality and beauty which it now universally sustains, is as follows :

Work into the skin with appropriate tools three or four successive coatings of drying varnish, made by boiling linseed oil with white lead and litharge, in the proportion of one pound of each of the latter to a gallon of the former, and adding a portion of chalk or ochre—each coating being thoroughly dried before the application of the next. Ivory black is then substituted for the chalk or ochre, the varnish thinned with spirits of turpentine, and five additional applications

made in the same manner as before, except that it is put on thin and not worked in. The leather is rubbed down with pumice-stone, in powder, and then placed in a room at 90 degrees, out of the way of dust. The last varnish is prepared by boiling ½ lb. of asphaltum with 10 lbs. of the drying oil used in the first step of the process, and then stirring in 5 lbs. of copal varnish and 10 lbs. of turpentine.

It must have a month's age before it is fit for use, in order to exhibit its true characteristics.—*U. S. Gazette.*

PAINTER'S DEPARTMENT.

DRYING OILS—To Prepare for Carriage, Wagon, and Floor Paintings.—Take linseed oil, 1 gal., and add gum shellac, 2 lbs.; litharge, ½ lb.; red-lead, ¼ lb.; umber, 1 oz. Boil slowly, 2 or 3 hours, until the gums are dissolved.

Grind your paints in this (any color) and reduce with turpentine. Yellow ochre is used for floor painting. This dries quick and wears exceedingly well.

2. Drying Oil, Equal to the Patent Dryers.—Linseed oil, 2 gals., and add litharge, red-lead, and umber, of each, 4 ozs., and sugar of lead and sulphate of zinc, of each, 2 ozs.

Boil until it will scorch a feather. Use this, or either of the others, in quantity to suit the object of the work being done.

3. Japan Dryer of the Best Quality.—Take linseed oil, 1 gal., and put into it gum shellac, ¾ lb.; litharge and burned Turkey umber, of each, ½ lb.; red-lead, ½ lb., and sugar of lead, 6 ozs. Boil in the oil until all are dissolved, which will require about 4 hours; remove from the fire, and add spirits of turpentine, 1 gal., and it is done.

While in Princeton, Indiana, after selling one of my books to T. & J. T. Ewing, extensive carriage manufacturers of that place, I obtained the foregoing recipe. It was published in a work printed in Columbus, Ohio, devoted to the art of painting. From this fact, and also that the gentlemen from whom I obtained it, had tested it and were using it, I have not myself tried it, but know, from the nature of the articles used, that nothing better will be required.

4. Another.—Another dryer is made by taking linseed oil, 5 gals., and adding red-led and litharge, of each, 3½ lbs.; raw umber, 1¼ lbs.; sugar of lead and sulphate of zinc, of each, ½ lb.; pulverize all the articles together, and boil in the oil until dissolved; when a little cool, add turpentine, 5 gals, or to make it of a proper consistence.

The gentleman of whom I obtained this recipe paid ten dollars for it. He was using it successfully, and said he used two or three drops of it to a quart of varnish also, and especially when the varnish did not dry readily.

OIL—PAINT—To Reduce with Water.—Take gum shellac, 1 lb.; sal-soda, ½ lb.; water, 3 pts.; put all into a suitable kettle and boil, stirring till all is dissolved. If it does not all dissolve, add a little more sal-soda; this, when cool, can be bottled for use. If it smells bad when opened, it does not hurt it.

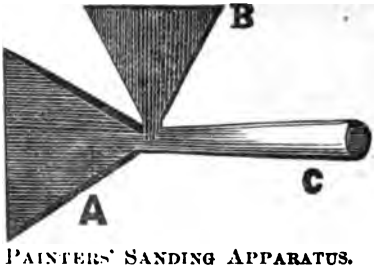
DIRECTIONS FOR USING.—Mix up two quarts of oil paint as usual, except no turpentine is to be used—any color desired. Now put one pint of the gum shellac mixture with the oil paint when it becomes thick, and may be reduced with water to a proper consistence to lay on with the brush. Two coats will be required, and with the second coat sand may be applied if desired. I used this upon a picket-fence with white-lead and yellow ochre for the body, and a little lamp-black to

give it a dark shade, putting on sand with the second coat. It is still firm and good, the work being done nearly four years ago.

The sand was applied with a tub-like box, with many small holes to allow the even spreading of the sand, as with a pepper-box. I do not regret using this kind of paint, nor the sanding, as it adds much to the durability of any out-door painting. But a better plan of sanding is represented in the "Painter's Sanding Apparatus," on next page.

2. Another Method.—Take soft water, 1 gal., and dissolve in it, pearlash, 3 ozs.; bring to a boil, and slowly add shellac, 1 lb.; when cold it is ready to be added to oil-paint, in equal proportions. The expense of these is only one-third of oil-paint.

Some persons may think it bad policy to learn painters to reduce oil-paint with water, but I think every man should be told of the plan, who is going to have a job of work done, and if he makes up his mind to try anything of the kind, it is then his own business; and I am perfectly sincere in recommending it, for if there was any great fault in it four years would show it.



PAINTERS' SANDING APPARATUS.

3. It is made of tin; the tube C, center upon the nozzle of a small bellows; the sand is put into the funnel B, which stands perpendicular upon the apparatus when the broad mouth-piece A, is held level in using. The funnel discharges the sand, just below the nozzle of the bellows; and by working the bellows the sand is blown evenly upon the freshly put on paint, through the mouth-piece A, the escape orifice not being over the sixteenth part of an inch in depth, and may be made two and a half or three inches wide.

Many persons like the plan of sanding generally, after painting, but from the fact that when it is desired to renew the paint, brushes cannot last long upon the sand, I think it only proper to sand fences or fronts, where boys' *knives* would be too freely used.

PAINT SKINS—To Save and Reduce to Oil.—Dissolve sal-soda ½ lb.; in rain-water, 1 gal.

The skins that dry upon the top of paint, which has been left standing for any length of time, may be made fit for use again by covering them with the sal-soda water and soaking them therein for a couple of days; then heat them, adding oil to reduce the mixture to a proper consistence for painting, and straining. Painters who are doing extensive business will save many dollars yearly by this simple process.

NEW TIN ROOFS—Valuable Process for Painting.—Scrape off the resin as clean as possible, and sweep the roof, now:

Dissolve sufficient sal-soda in a bucket of water to make it quite strong; wash the roof thoroughly with the soda water, and let it remain until it is washed off by the rains, or after a few hours, washing off with clean water, rinsing well.

When dry, give it one coat of pure Venetian-red, mixed with one-*third boiled*, and two-thirds raw linseed-oil; the second coat may be *any color* desired. The soda-water dissolves the resin remaining after *scraping*; destroys the greasy nature of the solder, and of the new tin

so that there will be sufficient "grip" for the paint to adhere firmly. The pure Venetian-red is one of the most durable paints for metallic roofs, but it is often rejected on account of its color. The above mode of painting will set aside this difficulty.

2. Fire-Proof Paint—for Roofs, etc.—Slack stone-lime by putting it into a tub, to be covered, to keep in the steam. When slacked, pass the powder through a fine sieve; and to each 6 qts. of it add 1 qt. of rock salt, and water, 1 gal.; then boil and skim clean. To each 5 gals. of this add pulverized alum, 1 lb.; pulverized copperas, ½ lb.; and still slowly add powdered potash, ¾ lb.; and then fine sand, or hickory ashes, 4 lbs.

Now add any desired color, and apply with a brush; looks better than paint, and is as durable as slate. It stops small leaks in roofs, prevents moss, and makes it incombustible; and renders brick impervious to wet.—*Maine Farmer.*

3. Water Proof, Oil-Rubber Paint.—Dissolve about 5 lbs. of India rubber in 1 gal. of boiled linseed-oil, by boiling. If this is too thick, reduce with boiled oil; if too thin, use more rubber.

Especially applicable to cloth, but valuable for any other material.

Frosting Glass.—The frosty appearance of glass, which we often see, where it is desired to keep out the sun, or "man's observing eye," is done by using a paint composed as follows:

Sugar of lead well ground in oil, applied as other paint; then pounced, while fresh, with a wad of batting held between the thumb and finger.

After which it is allowed to partially dry; then with a straight-edge laid upon the sash, you run along by the side of it a stick sharpened to the width of line you wish to appear in the diamonds, figures, or squares, into which you choose to lay it off; most frequently, however, straight lines are made an inch or more from the sash, according to the size of light, then the center of the light made into diamonds.

ORIENTAL—Crystal Painting.—The colors used are Prussian-blue, crimson, white, and yellow-lakes, Rosseau, white-zinc, and No. 40 carmine. Druggists keep them, in small tubes. They must be mixed with Demar-varnish, rubbing with a table-knife or spatula upon glass.

Directions for Making Various Shades, or Compound Colors.—Proportion them about as follows: For green, 1-5 blue, 4-5 yellow; purple, 1-6 blue, 5-6 crimson; orange, ¼ crimson, ¾ yellow; wine color, 1-12 blue, 11-12 crimson; pink, add a little crimson to white-zinc; brown, mix a dark purple, and add yellow according to the shade desired; black, add crimson to dark green until the shade suits you; to make the compound colors lighter, add the lightest color in it, and make darker by using more of the darkest color in the compound. For backgrounds: White, white-zinc, or pink white with turpentine and boiled linseed-oil and Demar-varnish; black, lamp-black, with asphaltum-varnish and boiled linseed-oil and turpentine in equal quantities; flesh-color, white-zinc with a small portion of crimson and crome-yellow, to suit. For sketching out the figures on the ground-work, use a little lamp-black with asphaltum varnish, turpentine and boiled linseed-oil, to make it flow freely.

DIRECTIONS FOR PAINTING.—Make your glass perfectly clean, and place it over the picture you wish to copy; then with the sketching preparation trace on the glass all the lines connected with the figures of the picture which you are copying, being careful to sketch lines very distinct; *when the sketching* is done and dry, proceed to lay on the

background inside of the sketched lines, until all the sketching is closed; and when the background is dry, proceed to put on the colors, commencing with green, if any in the figures, ending with yellow. When the colors are all laid, put the background upon the balance of the glass; and when all is dry, have tin foil crumpled very much in your hand, and then partly straightened out, and lay it over the figure, and keep it in its place by pasting paper over it in such a manner that it cannot slip away, letting the paper cover the whole back of the glass, or a wood back can be placed behind the glass, and all is complete, and will look well or ill, according to the practice and taste of the painter.

2. Fancy Green.—Unscorched, pulverized coffee, put into the white of an egg, will, in twenty-four hours, produce a very beautiful green for fancy painting—proof of poison in unbrowned coffee.

SKETCHING PAPER—To Prepare.—Bleached linseed-oil, turpentine, and balsam of fir, equal parts of each; mix.

Have a frame of a little less size than the paper to be prepared, and apply paste or thick gum solution to one side and the outer edge of it; wet the paper in clean water and lay it upon the frame, and press it down upon the pasted side of the frame, and turn the outer part of the paper over the outside of the frame upon the paste there, which holds it firm; and when it becomes dry it is tight like a drum-head; whilst in this condition, with a brush saturate it with the above mixture; three or four coats will be needed, giving each one time to dry before applying the next. Only sufficient is needed to make it transparent, so that when you wish to sketch a rose, or other flower or leaf, from nature, the paper can be placed upon it like the glass in the "Oriental Painting"; then trace the lines and finish it up in the same way also, as there described; or that you may see through it in taking perspective views of distant scenery.

DOOR PLATES—To Make.—Cut your glass the right size, and make it perfectly clean with alcohol or soap; then cut a strip of tin-foil sufficiently long and wide for the name, and with a piece of ivory or other burnisher rub it lengthwise to make it smooth; now wet the glass with the tongue, (as saliva is the best sticking substance,) or if the glass is very large, use a weak solution of gum arabic, or the white of an egg in half a pint of water, and lay it on the foil, rubbing it down to the glass with a bit or cloth, then also with the burnisher; the more it is burnished the better will it look; now mark the width on the foil which is to be the height of the letter and put on a straight-edge and hold it firmly to the foil, and with a sharp knife cut the foil and take off the superfluous edges; then either lay out the letters on the back of the foil, (so they shall read correctly on the front,) by your own judgment or by means of pattern-letters, which can be purchased for that purpose; cut with the knife, carefully holding down the pattern or straight-edge, whichever you use; then rub down the edge of all the letters with the back of the knife, or edge of the burnisher, which prevents the black paint or Japan, which you next put over the back of the plate, from getting under the foil; having put a line above and one below the name, or a border around the whole plate or not, as you bargain for the job. The japan is made by dissolving asphaltum in just enough turpentine to cut it, (see "Asphaltum Varnish"); apply with a brush, as other paint, over the back of the letters and over the glass, forming a background. This is used on the iron frame of the *plate also*, putting it on when the plate is a little hot, and as soon as it

dry. A little lamp-black may be rubbed into it, if you desire blacker than it is without it.

As you choose, you can remove every other foil letter, after the japan is dry, and paint in its place, red, blue, or other colored letters, to make a greater variety out of which for your customers to choose, as the one they desire you to follow in getting up their plate. Tin-foil being thicker than silver or gold-foil, will not show the paint through it in little spots, as they do; but if these foils are desired to be used, you can put on two thicknesses, by proceeding as follows, which prevents the paint from showing through: lay on the first coat of these foils the same as directed for the tin-foil, and smooth it down by rubbing on the front of the glass; then breathe on it until a dampness is caused; now put on the second and burnish well, having paper over it; but instead of the knife to cut around your pattern or straight-edge, take a sharp needle, using the point, make lines through the leaf around the pattern letter or straight-edge; then with a bit of jewelers' wood, or other hard wood, made to a narrow and sharp point, remove all up to the lines, both in and around the letters, as these foils have not the substance to peel off as the tin-foil; japanning over them the same as the other letters. Paper letters can be cut out of advertisements and put on by wetting the glass the same as for the foil, japanning over them, and when dry, removing them and painting the places out of which they came with various colors, as desired, as the japan will not peel, but makes a sharp and distinct edge; and these painted letters look well, in this way; and by taking advantage of printed letters, saves the skill and time necessary to form them.

To illustrate: In the name given below, A may be gold-foil; W will be blue; C, red; H, black; A, gold-foil; S, blue; E, red; M, black; and again D, gold-foil, which any one can see makes a more showy plate than if it all were of one foil, or one color.

Set your glass in the frame with putty, and put a thin coat of putty over the whole plate, as the plaster of Paris filling which is generally used soon eats out the japan or paint, and spoils the job. Persons with any ingenuity can very soon make a nice plate if they will pay attention to the above rules, as well as to pay five dollars for instructions, as a little practice must be had to become perfect, even if you do pay five dollars for an hour or two's telling and showing. Shellac varnish colored with lamp-black is good in place of the japan. See "Varnish—Transparent—for Wood."

ETCHING AND GRINDING UPON GLASS—For Signs, or Side Lights.—Take the "Asphaltum Varnish," and with small pencil lay out the name or design, not putting the varnish upon the letters, but around it, leaving the space which the letters of the sign are to occupy, free and clear, as seen in the above door-plate, represented in the wood cut, and by the way, a very nice style of letter for that purpose also, we think.

The varnish is to cover the black surface in the sign or name. The white line around the outside represents a border, which improves

the appearance of the plate; when the varnish is dry, have some melted beeswax, and as it begins to cool, with a knife take some of it up and scrape it off upon the edge of the glass being etched, so as to form a wall to hold the acid upon the glass while etching; now lay the glass flat and pour a little flouric acid on to the name, letter or design thus prepared, and let it remain on for one hour, not allowing the glass to be touched or moved for that time; then pour off the acid into your bottle, and it can be used again. The asphalt prevents the acid from eating or etching only the letter, and the wax wall prevents the acid from flowing off and being wasted. When you pour off the acid, wash the glass with a little water, scrape off the wax, and remove the asphalt with a little turpentine and all is done.

The above directions are for plain glass; but if you desire, you can gild the letter which is etched (eat out), or you can gild all except the letter, if desired, as described in the recipe for "Door Plates," or you can grind the surface of the glass, as described under the head of "Glass-grinding for Signs, Shades," etc. This applies equally well to "flashed," or what is called "stained glass," worked in the same way as above, putting the design or letters upon the stained side, which eats away color and leaves the design clean and white; or you can etch only a part of the way through the stain, which shows up the letter or flower lighter in color than the rest of the glass, which makes it look very beautiful for side-lights in halls, lamps, druggists' windows, etc.

There are two kinds of colored glass—one is called "Potmetal," the other "Flashed." The pot-metal glass is made by mixing the stain or coloring with melted glass, while making, and, consequently is alike all the way through. The stained glass is made by applying the color to one side of the glass after it is made, then applying sufficient heat to allow it to take hold of the glass only—the color is all on one side; this is the kind desired.

If it is desired to etch upon druggists' or other jars, it can be done by preparing the name to be put on, with the varnish and wax; then have a lead box without top or bottom, in shape on the lower edge to fit the shape of the jar, and press this down upon the wax to make it tight; then pour your acid into the box, which keeps it in its place, the same as the wax does on a flat surface. Ornaments or flourishes can be put on as well as letters.

The old plan was to cover the whole surface with wax, then remove it from the letter, which was very slow and troublesome, and if a bit of wax remained upon the bottle, the acid could not cut where the wax remained, then to hold the glass over the fumes of the acid, instead of putting the acid on the glass.

2. Glass-Grinding for Signs, Shades, etc.—After you have etched a name or other design upon uncolored glass, and wish to have it show off to a better advantage by permitting the light to pass only through the letters, you can do so by:

Take a piece of flat brass sufficiently large not to dip into the letters, but pass over them when gliding upon the surface of the glass; then with flour of emery, and keeping it wet, you can grind the whole surface, very quickly, to look like the ground glass globes, often seen upon lamps, except the letter which is eaten below the general surface.

Whole lights of glass can be ground in this way instead of frosting or the frosting can be done here in place of the grinding, if preferred.

3. Fluoric Acid, To Make for Etching Purposes.—You can make your own fluoric (sometimes called hydro-fluoric) acid, by getting

the fluor or Derbyshire spar, pulverizing it and putting all of it into sulphuric acid which the acid will cut or dissolve.

Druggists through the country do not keep this acid generally, but they can get it in the principal cities and furnish it for about seventy-five cents per ounce, and that ounce will do at least fifty dollars' worth of work. It is put up in gutta-percha bottles, or lead bottles, and must be kept in them when not in use, having corks of the same material. Glass, of course, will not hold it, as it dissolves the glass, otherwise it would not etch upon it.

PORCELAIN FINISH—Very Hard and White, for Parlors.—To prepare the wood for the finish, if it be pine, give one or two coats of the "Varnish—Transparent—for Wood," which prevents the pitch from oozing out, causing the finish to turn yellow; next, give the room at least four coats of pure zinc, which may be ground in only sufficient oil to enable it to grind properly, then mix to a proper consistence with turpentine or naptha. Give each coat time to dry. When it is dry and hard, sand-paper it to a perfectly smooth surface, when it is ready to receive the finish, which consists of two coats of French zinc ground in, and thinned with Demar-varnish, until it works properly under the brush.

Mr. Miles, of this city, one of our scientific painters, has been sufficiently kind to furnish me this recipe, prepared expressly for this work; therefore, the most explicit confidence may be placed in it; yet any one can judge for themselves from the nature of the articles used, that it must be white and hard. He goes on to say that if the French zinc in varnish cannot be procured, the varnish may be whitened with zinc ground in oil, as a very good substitute, being careful not to use too much, in which case it will diminish the gloss, and be more liable to turn yellow. A little turpentine or naphtha may be added, if too thick to work well, but in no instance should oil be used to thin the paint.

This finish, if properly applied, is very beautiful, and although purely white, may be kept clean more easily than other kinds of painting by simply using a dusting brush; or if soiled, a sponge wet in cold soft water without soap, is the better way.

N. B.—Not a particle of white-lead should be used where this finish is to be applied, either in the priming, or any subsequent coats, or a brush that has been used in lead without being thoroughly cleansed, as a yellow hue will soon present itself, which is caused by a chemical change taking place between the lead and zinc.

PAINTERS' ECONOMY IN MAKING COLORS.—Prussian Blue.—1st. Take nitric acid, any quantity, and as much iron shavings from the lathe as the acid will dissolve; heat the iron as hot as can be handled with the hand; then add it to the acid in small quantities as long as the acid will dissolve it, then slowly add double the quantity of soft water that there was of acid, and put in iron again as long as the acid will dissolve it. 2d. Take Prussiate of potash, dissolve it in hot water to make a strong solution, and make sufficient of it with the first to give the depth of tint desired, and the blue is made. Or:

2. Another Method.—A very passable Prussian-blue is made by taking the sulphate of iron (copperas) and Prussiate of Potash, equal parts of each, and dissolving each separately in water then mixing the two waters.

3. Chrome Yellow.—1st. Take sugar of lead and Paris white, of each 5 lbs.; dissolve them in hot water. 2d. Take bi-chromate of potash, 6½ ozs. and dissolve it in hot water also, each article to be

dissolved separately, then mix all together, putting in the bi-chromate last. Let stand twenty-four hours.

4. Chrome Green.—Take Paris-white, 6½ lbs.; sugar of lead and blue vitriol, of each 3½ lbs.; alum, 10½ ozs.; best soft Prussian-blue and chrome yellow, of each, 3½ lbs. Mix thoroughly while in fine powder, and add water 1 gal., stirring well, and let stand 3 or 4 hours.

5. Green—Durable and Cheap.—Take spruce yellow and color it with a solution of chrome yellow and Prussian-blue, until you give it the shade you wish.

6. Paris Green.—Take unslaked lime of the best quality, slake it with hot water; then take the finest part of the powder and add alum water, as strong as can be made, sufficient to form a thick paste, then color it with bi-chromate of potash and sulphate of copper, until the color suits your fancy. N. B.—The sulphate of copper gives the color a blue tinge—the bi-chromate of potash a yellow. Observe this and you will never fail.

7. Another Method.—Blue vitriol, 5 lbs.; sugar of lead, 6¼ lbs., arsenic, 2½ lbs.; bi-chromate of potash, 1½ ozs.; mix them thoroughly in fine powder, and add water, 3 pts, mixing well again, and let stand 3 or 4 hours.

8. Pea Brown.—1st. Take sulphate of copper, any quantity and dissolve it in hot water. 2d. Take Prussiate of potash, dissolve it in hot water to make a strong solution. Mix of the two solutions, as in the blue, and the color is made.

9. Rose Pink.—Brazil wood, 1 lb. and boil it for 2 hours, having 1 gal. of water at the end; then strain it and boil alum 1 lb. in the same water until dissolved; when sufficiently cool to admit the hand add muriate of tin, ¾ oz. Now have Paris-white, 12½ lbs., moistened up to a salvy consistence, and when the first is cool, stir them thoroughly together. Let stand 24 hours.

When any of the above mixtures have stood as mentioned, in their respective recipes, all that is necessary is to drain off the water by placing the preparations into muslin bags for that purpose, and then exposing the mixture to the air, to dry for use.

Glass, stone, or wood vessels only should be used, as the acids soon work upon iron, tin, copper, etc., giving you a tinge not desired in the color; and always observe that if water is to be mixed with strong acids, it must be added slowly, especially if in light vials, or you will break the vessels by means of the great heat which is set free by the combination. Painters can use their own judgment about making these colors; but if they do not do it for profit, there will be pleasure in testing them, even in vials-ful only, as the chemica action is just as fine in small as in large quantities.

BLACKSMITHS' DEPARTMENT.

FILES AND RASPS—To Re-Cut by a Chemical Process.—Dissolve saleratus, 4 ozs., to water, 1 qt., sufficient to cover the files, and boil them in it for half an hour; then take out, wash and dry them; now stand them in a jar, filling it up with rain water and sulphuric acid, in the proportion of water, 1 qt., to acid, 4 ozs.

If the files are coarse, they will need to remain in about twelve hours; but for fine files, six to eight hours will be all-sufficient. When you take them out, wash them clean, dry quickly, and put a little sweet oil upon them, to prevent rust.

This plan is applicable to blacksmiths, gunsmiths, tinners, coppersmiths, machinists, etc., etc. Copper and tin workers will only require a short time to take the articles out of their files, as the soft metals with which they become filled are soon dissolved, leaving the files about as good as new. For blacksmiths and saw-mill men it will require the full time.

They may be re-cut two or three times, making in all more service than it took to wear out the file at first.

The preparation can be kept and used as long as you see action take place upon putting the files into it. Keep it covered when not in use.

If persons, when filing, would lift up the file, in carrying back, there would be no necessity of a re-cutting, but in *drawing* it back they soon turn a wire-edge, which the acid removes. It also thins the tooth. Many persons have doubted this fact; but I know that the common three-square file, (used for sharpening saws,) when worn out and thrown by, for a year or two, may be again used with nearly the same advantage as a new one. The philosophy of it is this: the action of the atmosphere acts upon the same principle as the acid, corrodes (eats off) the surface, giving anew a square cutting edge. Try it, all ye doubtful. I have tried both, and know their value. Boiling in the saleratus-water removes grease, and allows the acid to act upon the steel.

VARNISHES.—To Prevent Rust on Iron or Steel.—Tallow, ½ ozs.; resin, 1 oz.; melt and strain while hot.

Apply a light coat of this, and you can lay away any articles not in constant use, for any length of time, such as knives and forks, or mechanics' tools which are being laid by, or much exposed. But for axes or other new tools, which are exposed to the air before sold, you will find the following varnish preferable:

2. Transparent, for Tools, Plows, etc.—Best alcohol, 1 gal.; gum sandarach, 2 lbs.; gum mastic, ½ lb. Place all in a tin can which admits of being corked; cork it tight, and shake it frequently, occasionally placing the can in hot water. When dissolved, it is ready to use.

This makes a very nice varnish for new tools which are exposed to dampness: the air, even, will soon (more or less) tarnish new work.

3. Seek-No-Farther, for Iron or Steel.—Take best Copal var-

nish, and add sufficient olive oil to make it feel a little greasy; then add nearly as much spirits of turpentine as there is of varnish, and you will probably *seek no farther.*

4. Transparent Blue, for Steel Plows.—Take Demar varnish, ½ gal.; finely ground Prussian-blue, ½ oz.; mix thoroughly.

5. For ground steel plows, or other ground steel, one or two coats of this will be found sufficient to give a nice blue appearance, like highly-tempered steel. Some may wish a little more blue; if so, add the Prussian-blue to your liking. Copal varnish is not so transparent as the Demar, but if you will have a cheap varnish, use No. 4.

6. Black, having a Polish, for Iron.—Pulverized gum asphaltum, 2 lbs.; gum benzoin, ¼ lb.; spirits of turpentine, 1 gal.; to make quick, keep in a warm place and shake often; shake to suit with finely ground ivory black.

Apply with a brush. And it ought to be used on iron exposed to the weather as well as on inside work desiring a nice appearance or polish. Or:

7. Varnish for Iron.—Asphaltum, 8 lbs.; melt it in an iron kettle, slowly adding boiled linseed oil, 5 gals.; litharge, 1 lb.; and sulphate of zinc, ½ lb.; continuing to boil for 3 hours; then add dark gum amber, 1½ lbs., and continue to boil 2 hours longer. When cool reduce to a proper consistence, to apply with a brush, with spirits of turpentine.

8. I wish here, also, to state a fact which will benefit those wishing to secure vines or limbs of trees to the side of a white house, with nails, and do not wish to see a streak of rust down the white paint, as follows:

Make a hole, in which to start the nail, putting a little strip of zinc into the hole, and drive the nail in contact with the zinc.

The electrical action of the two metals, in contact, prevents rust, proven by over eight years' trial.

WELDING—Cast Steel without Borax.—Copperas, 2 ozs.; saltpetre, 1 oz.; common salt, 6 ozs.; black oxyde of manganese, 1 oz.; prussiate of potash, 1 oz.; all pulverized and mixed with nice welding sand, 3 lbs., and use it the same as you would sand.

Higher tempered steel can be used with this better than with borax, as it welds at a lower heat—such as pitchfork tines, toe-corks, etc. The pieces should be held together while heating. I have found some blacksmiths using it without the manganese; but from what I know of the purifying properties of that article upon iron, I am sure it must be preferable with it, as that is the principal purifier in the next recipe.

POOR IRON—To Improve.—Black oxide of manganese, 1 part; copperas and common salt, 4 parts each; dissolve in soft water and boil until dry; when cold, pulverize, and mix quite freely with nice welding sand.

When you have poor iron which you cannot afford to throw away, heat it and roll it in this mixture, working for a time, re-heating, etc., will soon free it from all impurities, which is the cause of its rottenness. By this process you can make good horse-nails, even out of only common iron.

WRITING UPON IRON OR STEEL, SILVER OR GOLD—Not to Cost the Tenth Part of a Cent per Letter.—Muriatic acid, 1 oz.; nitric acid, ½ oz. Mix, when it is ready for use.

DIRECTIONS.—Cover the place you wish to mark, or write upon, with melted bees-wax; when cold, write the name plain with a file

point or an instrument made for the purpose, carrying it through the wax and cleaning the wax all out of the letter; then apply the mixed acids with a feather, carefully filling each letter; let it remain from one to ten minutes, according to the appearance desired; then put on some water, which dilutes the acids and stops the process. Either of the acids, alone, would cut iron or steel, but it requires the mixture to take hold of gold or silver. After you wash off the acids, it is best to apply a little oil.

MILL-PICKS—To Temper.—To 6 qts. of soft water, put in pulverized corrosive sublimate, 1 oz., and 2 hands of common salt; when dissolved it is ready for use. The first gives toughness to the steel, whilst the latter gives the hardness. I have found those who think it better to add sal-ammoniac, pulverized, 2 ozs., to the above.

DIRECTIONS.—Heat the picks to only a cherry red and plunge them in and do not draw any temper. In working mill-picks, be very careful not to overheat them, but work them at as low a heat as possible. The reason why so many fail in making good picks, is that they don't work them at as low heat as they should. With care upon that point, and the above fluid, no trouble will be experienced, even on the best diamond burrs. Be sure to keep the preparation covered when not in use, as it is poison. Pigs or dogs might drink of it, if left uncovered. This is the mixture which has gained me the name of having the best preparation in use for mill-picks, and the certificates on this subject, but as I have some others which are very highly spoken of, I give you a few others.

2. An English miller, after buying my book, gave me the following recipe, for which he paid ten dollars. He had used it all his life, or from the time he began business for himself, (about thirty years,) and he would use no other:

Salt, ½ tea-cup; saltpetre, ½ oz.; alum, pulverized, 1 tea-spoon; soft water, 1 gal.; never heating over a cherry red, nor drawing any temper.

3. Saltpetre, sal-ammoniac, and alum, of each, 2 ozs.; salt, 1½ lbs.; water, 3 gals; and draw no temper.

There must be something in this last, as the next one I obtained at least five hundred miles from where I did this, and both from men who knew their value, and yet they resemble each other near enough to be called "The Twins."

4. Mill-Picks and Saw-Gummers, To Temper.—Saltpetre and alum, each, 2 ozs; sal-ammoniac, ½ oz.; salt, 1½ lbs.; soft water, 3 gals. Heat to a cherry red and plunge them in, and draw no temper.

The steel must never be heated above a cherry red, and in working and drawing the picks there ought to be quite an amount of light water-hammering, even after the steel is quite cool. Once more, and I am done: yet it may be possible that the last, in this case, may be the best; read it.

5. Mill-Pick Tempering, as done by Church, of Ann Arbor.—Water, 3 gals.; salt, 2 qts.; sal-ammoniac and saltpetre, of each, 2 ozs.; ashes from white-ash bark, 1 shovel, which causes the picks to scale clean and white as silver.

I obtained this recipe of a blacksmith who paid young Mr. Church five dollars for it, he coming into the shop and showing him how to work the picks, as also the composition. His instructions were, not to hammer too cold, to avoid flaws; not to heat too high, which opens the pores of the steel, nor to heat more than one or two inches of the pick when tempering. The gentleman says, if care is taken in heating and

working, that no other tempering liquid will equal it, yet he spoiled the first batch by over-heating, even after Mr. Church had taken all pains to show him. They (the Messrs. Church) have picks sent to them, for tempering, from Illinois and even Wisconsin.

BUTCHER-KNIVES.—Spring Temper and Beautiful Edge.—In forging out the knife, as you get it near to its proper thickness, be very careful not to heat it too high, and to water-hammer, as for mill-picks. When about to temper, heat only to a cherry red, and hold it in such a way that you can hold it plumb as you put it into the water, which prevents it from springing—put in plumb into the water, and it will come out straight.

Take it from the water to the fire, and pass it through the blaze until a little hot; then rub a candle over it upon both sides, and back to the fire, passing it backward and forward, in the blaze, turning it over often to keep the heat even over the whole surface, until the tallow passes off as though it went into the steel; then take out and rub the candle over it again (on both sides each time) and back to the fire passing it as before, until it starts into a blaze, with a snap, being careful that the heat is even over the whole length and width of the tool; then rub the tallow over it again, and back, for 3 times, quickly, as it burns off; and lastly, rub the tallow over it again, and push it into the dust of the forge, letting it remain until cold.

If these directions are followed with dexterity, you will have the temper alike from edge to back; and the edge will be the best you ever saw. As Davy Crockett used to say, "It will jump higher, dive deeper," shave more hogs, bend farther without breaking, and give better satisfaction than all other knives put together.

It works equally well on drawing-knives and other thin tools; and for trap-springs which are to be set on dry ground; but if set in water "pop goes the weasel" the first time the trap is sprung. But the following is the plan for tempering springs for general trapping:

2. TRAP SPRINGS—To Temper.—For tempering cast-steel trap-springs, all that is necessary is to heat them in the *dark* just that you may see it is red, then cool them in lukewarm water. This is a short recipe, but it makes long-lasting springs.

The reason why darkness is required to temper springs is that a lower degree of heat can be seen in the night than by daylight; and the low heat and warm water give the desired temper.

SILVER PLATING—For Carriage Work.—First, let the parts which are to receive the plate be filed very smooth; then apply over the surface the muriate of zinc, which is made by dissolving zinc in muriatic acid; now hold this part over a dish containing hot soft solder, (pewter solder is probably the softest,) and with a swab apply the solder to the part, to which it adheres; brush off all superfluous solder, so as to leave the surface smooth; you will now take No. 2 fair silver plate, of the right size to cover the surface of the part prepared with solder, and lay the plate upon it and rub it down smooth with a cloth, which is moistened with oil, then, with a soldering-iron, pass slowly over all the surface of the plate, which melts the solder underneath it, and causes the plate to adhere as firmly as the solder does to the iron; then polish the surface, finishing with buckskin.

The soldering-irons must be tinned, and also kept very smooth, and used at about the same heat as for soldering tin.

IRON—To Prevent Welding.—Where it is desired to weld two bars of iron together, for making axletrees or other purposes, through which you wish to have a bolt-hole, without punching out a piece of

the iron, you will take a piece of wet pasteboard, the width of the bar and the length you desire not to weld, and place it between the two pieces of iron, and hold them firmly upon the pasteboard while taking the heat, and the iron will weld up to the pasteboard, but not where it is; then open the hole, with swedge and punch, to the desired size.

In this way blacksmiths' tongs may be relaid, without the trouble of cutting the joints apart and making a new jaw. Simply fit two pieces of iron, the thickness you wish to add to the jaws of the tongs, have them of the right length and width also, then take them both between the jaws and heat them so you can pound them together, that they will fit closely for a weld; now put a piece of the wet pasteboard between the pieces which you are to weld, having the handles of the tongs stand sufficiently apart that you may put on a link or ring to hold all firmly; then put into the fire, and take a good welding heat; and yet they do not weld where the paper was between them; if they stick a little at the end, just put them on the swedge and give them a little tap with the hammer, and they will fly right apart as nice as new. I am told that the dust from the ground or floor of the blacksmith-shop is as good as the pasteboard, yet I have not seen that tried; but I know there is no mistake in the other; and yet I have found one blacksmith who declared he would not believe it could be done, even if he saw it.

CAST-IRON—To Case-Harden.—Cast-iron may be case-hardened by heating to a red heat, and then rolling it in a composition composed of equal parts of prussiate of potash, sal-ammoniac, and saltpetre, all pulverized and thoroughly mixed; then plunged, while yet hot, into a bath containing 2 ozs. of the prussiate, and 4 ozs. of the sal-ammoniac to each gal. of cold water.—*Scientific Artisan.*

2. Cast-Iron—The Hardest—To Soften for Drilling.—Heat to a cherry red, having it lie level in the fire, then with a pair of cold tongs put on a piece of brimstone, a little less in size than you wish the hole to be when drilled, and it softens entirely through the piece; let it lie in the fire until a little cool, when it is ready to drill.

Sleigh-shoes have been drilled, by this plan, in five minutes, after a man had spent half a day in drilling one-fourth of an inch into it. It is applicable to any article which can be heated without injury.

WROUGHT-IRON—To Case-Harden.—To case-harden wrought iron, take the prussiate of potash, finely pulverized, and roll the article in it, if its shape admits of it; if not, sprinkle the powder upon it freely, while the iron is hot.

This is applicable to iron axle-trees, by heating the axle-tree and rolling the bottom of it in the powder, spread out for that purpose, turning it up quickly and pouring cold water upon it, getting it into the tub of cold water as quick as possible. They will wear for years, without showing wear.

2. Welding a Small Piece of Iron upon a Large One, with only a Light Heat.—It is often desirable to weld a small bit of iron upon a large bar, when the large piece must be heated equally hot as the small one. To save this:

Take borax, 1 lb.; red oxide of iron, 1 to 2 ozs.; melt them together in a crucible; and when cold, pulverize it and keep the powder dry for use.

When you want to perform the operation, just bring the large piece to a white heat, having a good welding heat upon the small slip; take the large one from the fire, and sprinkle some of the powder upon the place, and bring the other upon it, applying the hammer

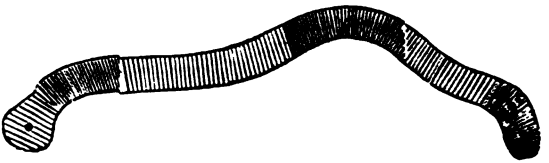
smartly, and the weld will be as good as could be made with the *greater heat* without the powder.

BRONZING—For Iron or Wood.—First, make a black paint; then put in a little chrome-yellow, only sufficient to give it a dark-green shade; apply a coat of this to the article to be bronzed; when dry, give it a coat of varnish; and when the varnish is a little dry, dust on bronze by dipping a piece of velvet into the bronze and shaking it upon the varnish; then give it another coat of varnish, and when dry, all is complete.

Cast-iron bells, which are now being extensively introduced to the farming community, will be much improved in their appearance by the bronzing, and also protected from rust, without injury to its sound. Iron fences around yards, porches, verandahs, etc., will be much improved by it. It may also be applied to wood, if desired.

TRUSS SPRINGS.—Directions for Blacksmiths to Make—Better than the Patent Trusses.—After having tried the various kinds of trusses, over two years, having to wear one upon each side, I gave them all up as worse than useless.

I then went to a blacksmith and had springs made, bending them as represented in the cut.



TRUSS SPRING.

Then they were bent to suit the shape of the body. and to press upon the body only sufficient, after the pads are put on, to hold back that which would otherwise protrude. The pad upon the back end of the spring I make of sole-leather, covered with cotton or linen cloth having stuffed in a little batting to make it rest as easy as possible The front pad I make by having a piece of wood turned the shape and size of a small hen's-egg, sawing it through the center lengthwise, putting two screws into it through the holes represented in the end of the spring for that purpose. The back pad is secured by one screw only. The spring is oiled, then covered with sheep-skin, to prevent rusting. Then it is secured around the body with a leather strap and buckle, or with a piece of cloth sewed into a string of suitable width to sit easy where it bears upon the hip, in passing to tie upon the other end of the spring, just back of the front pad. The bend which is given the spring, before it is bent to the shape of the body, gives it room to rise when the leg is raised, without lifting the pad from its position, saving the necessity of another strap to pass around *under* the thigh, as with the patent truss, which is very annoying to the wearer. Make the springs of spring-steel, about ½ or ⅝ of an inch in width, and about 1-16 in thickness, and of sufficient length to have a bearing just short of the spine.

I now speak from *eight* years' personal experience, which ought to be a sufficient length of time for an experiment to be well established.

TINNERS' DEPARTMEN

BLACK VARNISH—For Coal Buckets.—Asphaltum, 1 lb.; lamp-black, ¼ lb.; resin, ½ lb.; spirits of turpentine, 1 qt.

Dissolve the asphaltum and resin in the turpentine; then rub up the lamp-black with linseed oil, only sufficient to form a paste, and mix with the others. Apply with a brush.

JAPAN FLOW FOR TIN—All Colors.—Gum sandarach, 1 lb.; balsam of fir, balsam of tolu, and acetate of lead, of each, 2 ozs.; linseed oil, ½ pt.; spirits of turpentine, 2 qts.

Put all into a suitable kettle, except the turpentine, over a slow fire at first, then, raise to a higher heat until all are melted; now take from the fire, and when a little cool, stir in the spirits of turpentine and strain through a fine cloth. This is transparent; but by the following modifications any or all the various colors are made from it.

2. Black.—Prussian blue, ½ oz.; asphaltum, 2 ozs.; spirits of turpentine, ½ pt.

Melt the asphaltum in the turpentine; rub up the blue with a little of it, mix well, and strain; then add the whole to one pint of the *first*, above.

3. Blue.—Indigo and Prussian blue, both finely pulverized, of each, ½ oz.; spirits of turpentine, 1 pt. Mix well and strain.

Add of this to one pint of the *first* until the color suits.

4. Red.—Take spirits of turpentine, ½ pt.; add cochineal, ½ oz.; let stand 15 hours, and strain.

Add of this to the *first* to suit the fancy.

5. Yellow.—Take 1 oz. of pulverized root of curcuma and stir of it into 1 pt. of the *first*, until the color pleases you, let stand a few hours, and strain.

6. Green.—Mix equal parts of the blue and yellow together, then mix with the *first* until it suits the fancy.

7. Orange.—Mix a little of the red with more of the yellow and then with the *first* as heretofore, until pleased.

8. Pink.—Mix a little of the blue to more in quantity of the red, and then with the *first* until suited.

In this simple and philosophical way you get all the various colors. Apply with a brush.

GOLD LACQUER FOR TIN.—Transparent, all Colors.—Alcohol in a flask, ½ pt.; add gum shellac, 1 oz.; tumeric, ½ oz.; red-sanders, ¼ oz. Set the flask in a warm place, shake frequently for 12 hours or more, then strain off the liquor, rinse the bottle and return it, corking tightly for use.

When this varnish is used, it must be applied to the work freely and flowing, or, if the work admits of it, it may be dipped into the varnish, and laid on the top of the stove to dry, which it will do very quickly; and they must not be rubbed or brushed while drying; or the article may be hot when applied. One or more coats may be laid

on, as the color is required more or less light or deep. This is applied to lanterns, etc. If any of it should become thick from evaporation, at any time, thin it with alcohol. And by the following modifications, all the various colors are obtained:

2. Rose Color.—Proceed as above, substituting ¼ oz. of finely ground, best lake, in place of the tumeric.

3. Blue.—The blue is made by substituting pulverized Prussian blue, ½ oz. in place of the tumeric.

4. Purple.—Add a little of the blue to the *first*.

5. Green.—Add a little of the rose-color to the *first*.

Here again philosophy gives a variety of shades with only a slight change of materials or combinations.

LACQUER FOR BRASS.—Transparent.—Tumeric root, ground fine, 1 oz.; best dragon's blood, ½ dr.; put into alcohol, 1 pt.; place in a moderate heat, shake well for several days. It must be strained through a linen cloth and put back into the bottle, and add powdered gum shellac, 3 ozs.; then keep as before in a warm place for several days, frequently shaken; then again strained, bottled and corked tight.

Lacquer is put upon metal for improving its appearance and preserving its polish. It is applied with a brush when the metal is warm otherwise it will not spread evenly.

IRON—To Tin for Soldering or Other Purposes.—Take any quantity of muriatic acid and dissolve all the zinc in it that it will cut; then dilute it with one-fourth as much soft water as of acid, and it is ready for use.

This, rubbed upon iron, no matter how rusty, cleanses it and leaves some of the zinc upon the surface, so that solder readily adheres to it or copper as mentioned below for coppering iron or steel.

2. Iron, Iron Wire, or Steel, to Copper the Surface.—Rain water, 3 lbs.; sulphate of copper, 1 lb. Dissolve.

Have the article perfectly clean; then wash it with this solution and it immediately exhibits a copper surface.

Lettering on polished steel is done in this way; flowering or ornamenting can also be done in the same way. Sometimes dilute muriatic acid is used to clean the surface; the surface must be clean by filing, rubbing, or acid; then cleaned by wiping off.

COPPER—To Tin for Stew-Dishes or Other Purposes.—Wash the surface of the article to be tinned, with sulphuric acid; and rub the surface well, so as to have it smooth and free of blackness caused by the acid; then sprinkle calcined and finely pulverized sal-ammoniac upon the surface, holding it over a fire where it will become sufficiently hot to melt a bar of solder which is to be rubbed over the surface; if a stew-dish put the solder into it and swab it about when melted.

You will wipe off any surplus solder, and also for the purpose of smoothing the surface, by means of a tow or cotton swab, tied or tacked to a rod. In this way any dish or copper article may be nicely tinned.

BOX-METAL—To Make for Machinery.—Copper, 4 parts; lead, 1 part—zinc is sometimes substituted for the lead—either makes a durable box for journals.

Printer's worn out type, in place of the lead, makes an improvement

SOLDERS—For Brazing.—Copper, 3 parts; zinc, 2 parts, or sheet brass, 3 parts; zinc, 1 part.

2. Solder for Lead.—Take tin, 1 part; lead, 2 parts.

3. Solder for Tin.—Lead, 10 parts; tin, 7 parts.

4. Solder for Britannia.—Bismuth, ½ of one part; tin, 1 part; lead, 1 part.

BRITANNIA—To Use Old, Instead of Block Tin, in Solder.—Take old Britannia and melt it; and while hot sprinkle sulphur over it and stir for a short time.

This burns out the other articles in it, and leaves the block tin, which may now be used for making solder as good as new tin.

TIN—To Pearl, or Crystalize.—Sulphuric acid, 4 ozs.; soft water, 2 or 3 ozs., according to strength of the acid; salt, 1 oz.; mix.

Heat the tin quite hot over a stove or heater; then with a sponge wet with the mixture, washing off directly with clean water. Dry the tin; then varnish it with Demar varnish.

This brings out the crystaline nature of the tin. Used in making water-coolers, spittoons, etc.

2. Tinning Flux—Improved.—It has been customary for tinners to use the muriate of zinc only; but if you take 1 lb. of muriatic acid and put in all the zinc it will eat; then put in 1 oz. of sal-ammoniac, you will have no more trouble with old dirty or greasy seams.

Sometimes I think it is still improved by adding to it an equal amount of soft water.

3. Liquid Glue, for Labeling Upon Tin.—Boiling water one quart, borax, pulverized, two ounces; put in the borax; then add gum shellac four ounces, and boil until dissolved.

Labels put upon tin with common glue or commom paste will not stick long. But this preparation obviates the difficulty entirely.

SCOURING LIQUID—For Brass, Door-Knobs, etc.—Oil of vitriol, 1 oz.; sweet oil, ½ gill; pulverized rotten stone, 1 gill; rain-water, 1½ pts., mix all, and shake as used.

Apply with a rag, and polish with buck-skin or old woolen. This makes as good a preparation as can be purchased, and for less than half the money. It does not give a coating, but is simply a scourer and polisher. The following gives it a silver coating:

SCOURING POWDER—For Copper or Worn Plated Goods.—Nitrate of silver and common salt, of each, 30 grs.; cream-of-tartar 3½ drs.; pulverize finely, mix thoroughly and bottle for use.

When desired to re-silver a worn spoon or other article, first clean them with the "Scouring Liquid;" then moisten a little of the powder and rub it on thoroughly with a piece of buck-skin. For Jewelry, see "Jewelry Department."

OIL CANS—Size of Sheet, for From 1 to 100 Gallons.—

For 1 gallon,		7 by 20	inches.	25 gallons,		30 by 56	inches.
3½	"	10 by 28	"	40	"	30 by 63	"
5	"	12 by 40	"	50	"	40 by 70	"
6	"	14 by 40	"	75	"	40 by 84	"
10	"	20 by 42	"	100	"	40 by 98	"
15	"	30 by 42	"				

GUNSMITHING DEPARTMENT.

GUN-BARRELS.—Browning Process.—Spirits of nitre, 1 lb.; alcohol, 1 lb.; corrosive sublimate, 1 oz.; mix in a bottle, and keep corked for use.

DIRECTIONS.—Plug both ends of the brrrel, and let the plugs stick out three or four inches, to handle by, and also to prevent the fluid from entering the barrel, causing it to rust; polish the barrel perfectly; then rub it well with quick-lime by means of a cloth, which removes oil or grease; now apply the browning fluid with a clean white cloth, apply one coat and set in a warm, dark place, until a red rust is formed over the whole surface, which will require, in warm weather, from ten to twelve hours, and in cold weather, from fifteen to twenty hours, or until the rust becomes red; then card it down with a gunmaker's card and rub off with a clean cloth; repeat the process until the color suits, as each coat gives a darker shade.

2. Quicker and Less Laborious Process.—While in Evansville, Indiana, I sold one of my books to C. Keller, a man who carries on gunsmithing, extensively. He gave me the following, which he was using, and says it makes a dark brown, with but little labor compared with the first.

Soft water, 1 qt., and dissolve in it blue vitriol, 2 ozs.; corrosive sublimante, 1 oz.; and add 1 oz. of spirits of nitre. Have the barrel bright and put on one coat of the mixture; and in 1 hour after, put on another, and let the barrel stand 12 hours; then oil it and rub it with a cloth, of course having the ends of the barrel tightly plugged, as in the first case.

But Mr. Sutherland, the gunsmith of this city, says the brown from this recipe will soon rub off; none being permanent unless carded down properly as directed with the first recipe, that mixture being also superior.

3. Browning for Twist Barrels.—Take spirits of nitre, ¾ oz.; tincture of steel, ¾ oz.; (if the tincture of steel cannot be obtained, the unmedicated tincture of iron may be used, but it is not so good) black brimstone, ¼ oz.; blue vitriol, ½ oz.; corrosive sublimate, ¼ oz.; nitric acid, 1 dr. or 60 drops; copperas, ¼ oz.; mix with 1½ pts. of rain water, keep corked, also, as the other, and the process of applying is also the same.

You will understand this is not to make an *imitation* of twist barrels, but to be used upon the real twist barrels, which brings out the twist so as to show; but if you use the first upon the real twist barrels, it will make the whole surface brown like the common barrel.

CASE-HARDENING.—For Lock-Work.—Take old boots and shoes and lay them on a fire, and burn them until charred; now put them into a clean kettle and pulverize them coarsely, while hot; be careful not to get any wood coals mixed with them.

DIRECTIONS.—Take the pulverized leather and place in a sheet-iron box, or amongst the pulverized leather, and cover with a sheet-

iron cover; or make the box so as to shut up; now blow up a fire of *very dry* charcoal; the coarser the charcoal the better; then open the fire and place the closed box in the centre, cover it up and let stand from forty to sixty minutes, not blowing; but if the coals burn off and leave the box exposed, you will put on more; at the expiration of the time, take the box and pour its contents into clean, moderately cool or cold water—never use warm water; these articles will now be found very hard, and will easily break; so you will draw the temper to suit.

BROKEN SAWS.—To Mend Permanently.—Pure silver, 19 parts; pure copper, 1 part; pure brass, 2 parts; all are to be filed into powder and intimately mixed. If the saw is not recently broken, apply the tinning preparation of the next recipe.

Place the saw level upon the anvil, the broken edges in close contact, and hold them so; now put a small line of the mixture along the seam, covering it with a larger bulk of powdered charcoal; now, with a spirit-lamp and a jewelers' blow pipe, hold the coal-dust in place, and blow sufficient to melt the solder mixture; then with a hammer set the joint smooth, if not already so, and file away any superfluous solder; and you will be surprised at its strength. The heat upon a saw does not injure its temper as it does other tools, from the fact that the temper is rolled in, in place of by heat and water.

TINNING.—Superior to the Old Process.—Take first, the same as the old way, that is, muriatic acid, 1 pt., and as much pure block or sheet zinc as it will cut, in an open dish, a bowl, or sometning of that character, as much heat is set free and bottles are often broken by it; now take sal-ammoniac, 4 ozs.; pulverize it and add to the other, and boil 10 minutes in a copper kettle—bear in mind only copper is to be used to boil in.

You will find this will cause the solder to flow right along without difficulty. Keep corked tight when not in use.

VARNISH AND POLISH FOR STOCKS.—German.—Gum shellac, 10 ozs.; gum sandarach, 1 oz.; Venice turpentine, 1 dr.; alcohol, 95 to 98 proof, 1 gal.; shake the jug occasionally, for a day or two, and it is ready for use.

After using a few coats of this, you can have a German polish, by simply leaving out 8 ozs. of the shellac; and a coat or two of the polish makes an improvement on the varnish, and does not require the rubbing, that it would if the full amount of shellac was used, in the last coat or two. It is recommended also to put upon cuts, sores, etc., burns excepted.

JEWELERS' DEPARTMENT.

GALVANIZING.—Without a Battery.—Dissolve cyanuret of potassium, 1 oz., in pure rain or snow water, 1 pt., to which add a 1 dr. bottle of the chloride of gold, and it is ready to use. Scour the article to be plated, from all dirt and grease, with whiting, chalk, or rotten stone, pulverized, and put in alcohol, using a good brush—or the "Polishing Compound," No. 3; if there are cracks, it may be necessary to put the article in a solution of caustic potash—at all events every particle of grease and dirt must be removed; then suspend the article to be plated in the cyanuret of gold solution, with a small strip of zinc cut about the width of a common knitting-needle, hooking the top over a stick which will reach across the top of the jar holding the solution.

Every five to ten minutes the article should be taken out and brushed over with the scouring preparation; or on smooth surfaces it may be rubbed off and wiped with a piece of cotton cloth, and returned until the plating is sufficiently heavy to suit.

When the plating fluid is not in use, bottle it, keeping it corked, and it is always ready for use, bearing in mind that it is as poison as arsenic, and must be put high, out of the way of children, and labeled —*Poison*, although you will have no fears in using it; yet accidents might arise, if its nature were not known. The zinc strip, as far as it reaches into the fluid, will need to be rubbed occasionally, until it is bright.

2. Galvanizing With a Shilling Battery.—I have found some persons who thought it much better to use a simple battery, made by taking a piece of copper rod about three-eighths of an inch in thickness, and about eighteen or twenty inches long, and bend it, as seen in the accompanying cut:

SHILLING BATTERY.

The rod should be about 4 or 5 inches in the circle or bend, then run parallel, having 5 strips of sheet zinc, an inch wide and 6 to 8 inches long, bent in their centre around the copper, with a rivet through them, close to the rod, as shown above; these strips of zinc are to be placed into tumblers, which are to be nearly filled with rain water; then pour into each tumbler a little oil of vitriol, until you see *that it begins* to work a little on the zinc.

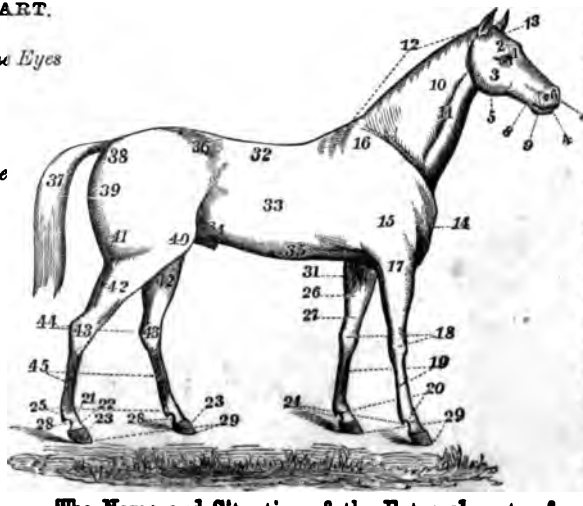
The article to be plated is to be suspended upon the stick of zinc, as represented upon the long end of the rod, which is to be placed as before spoken of, in a jar containing the gold solution, instead of having it upon the stick spoken of when plating without the battery. And all the operations are the same as before described.

JEWELRY.—Cleaning and Polishing Compound.—Aqua ammonia, 1 oz.; prepared chalk, ⅛ oz.; mix, and keep corked.

To use for rings, or other smooth-surfaced jewelry, wet a bit of cloth with the compound, after having shaken it, and rub the article thoroughly; then polish by rubbing with a silk handkerchief or piece of soft buck-skin. For articles which are rough-surfaced, use a suitable brush. It is applicable for gold, silver, brass, britannia, plated goods, etc.

THE FORE PART.

1 *Forehead*
2 *Cavity above the Eyes*
3 *Temples*
4 *Lips*
5 *Jaw*
6 *Nostrils*
7 *Tip of the Nose*
8 *Beard*
9 *Chin*
10 *Neck*
11 *Throat*
12 *Mane*
13 *Fore Top*
14 *Chest*
15 *Shoulders*
16 *Withers*
17 *Arm*
18 *Knee*
19 *Shank*
20 *Fetlock Joint*
21 *Pastern*
22 *Coronet*
23 *Hoof*
24 *Fetlock*



The Name and Situation of the External parts of

A HORSE.

25 { *Back Sinews or Main Tendons*
26 *Plate Vein*
27 *Chesnut*
28 *Quarters*
29 *Toe*
30 *Heel*
31 *Elbow*

THE BODY.

32 *Reins*
33 *Ribs*
34 *Flanks*
35 *Belly*
36 *Fillets*

THE HIND PART.

37 *Tail*
38 *Rump*
39 *Buttocks*
40 *Stifle*
41 *Haunches*
42 *Thighs*
43 *Hock*
44 *Point of the Hock*
45 *Instep*

FARRIERS' DEPARTMENT.

CHOLIC.—Cure for Horses or Persons.—Spirits of turpentine, 3 ozs.; laudanum, 1 oz.; mix, and give all for a dose, by putting it into a bottle with ½ pt. of warm water, which prevents injury to the throat. If relief is not obtained in one hour, repeat the dose, adding ½ oz. of the best powdered aloes, well dissolved together, and have no uneasiness about the result.

SYMPTOMS.—The horse often lies down, suddenly rising again, with a spring, strikes his belly with his hind feet, stamps with his fore feet, and refuses every kind of food, etc. I suppose there is no medicine in use, for cholic, either in man or horse, equal to this mixture.

For persons, a dose would be from one to two tea-spoons, *children* or *weak* persons, less, according to the urgency of the symptoms, to be taken in warm water or warm tea.

I have been familiar with it for about five years, and know that it has been successful in many cases—all, where it has been used. Many think it the best cholic remedy in the world.

2. Another.—Laudanum, ½ oz.; sulphuric ether, 1 oz. Mix, and for a horse, give all at a dose, in warm water, as above. Dose for a person, as the first.

A Mr. Thorpe, of whom I obtained this recipe, tells me he has cured cholic in horses, in every case, with the first dose, except one, and in that case by repeating the dose thirty minutes after the first. There is no question but what it is good, and some would prefer it to the turpentine. I know it is valuable.

BOTS—Sure Remedy.—When a horse is attacked with bots, it may be known by the occasional nipping at their own sides, and by red pimples or projections on the inner surface of the upper lip, which may be seen plainly by turning up the lip.

FIRST, then, take new milk, 2 qts.; molasses, 1 qt.; and give the horse the whole amount. SECOND, 15 minutes afterwards give very warm sage tea, 2 qts. LASTLY, 30 minutes after the tea, you will give of currier's oil, 3 pts., (or enough to operate as physic). Lard has been used, when the oil could not be obtained, with the same success.

The cure will be complete, as the milk and molasses cause the bots to let go their hold, the tea puckers them up, and the oil carries them entirely away. If you have any doubt, one trial will satisfy you perfectly. In places where the currier's oil cannot be obtained, substitute the lard, adding three or four ounces of salt with it; if no lard, dissolve a double handful of salt in warm water, three pints, and give all.

RING-BONE AND SPAVINS—To Cure.—Egyptiacum and wine vinegar, of each, 2 ozs.; water of pure ammonia, spirits of turpentine, and oil of origanum, of each, 1 oz.; euphorbium and cantharides, of each, ½ oz.; glass made fine and sifted through gauze, 1 dr.; put them in a bottle, and when used let them be well shaken. This is

be rubbed upon the bone enlargement with the hand or spatula, for half an hour each morning, for six or seven mornings in succession. Let the horse be so tied that he cannot get his mouth to the place for 3 or 4 hours, otherwise he will blister his mouth and blemish the part. Then let him run until the scab comes off of itself without scraping, which injures the roots of the hair. Then repeat as before, and follow up for 3 or 4 times blistering, and all bone enlargements will be re-absorbed, if not of more than a year or two's standing.

It is also good for callous sinews, and strains of long standing, spavins, big-head, etc., but if there are ring-bones of so long standing that this does not cause their cure, you will proceed as follows:

2. Add to the above compound, corrosive sublimate, in powder, ½ oz.; oil of vitriol, ½ oz.; and common salt, ½ oz.; when it is again ready for use; always shaking well as you use either preparation.

Now clip the hair and prick the bone or callous part as full of holes as you can with a pegging-awl, which is just long enough to break through the callous part only. Or a better way to break up this bony substance is to have a handle like a pegging-awl handle, with three or four awls in it, then tap it in with a stick, and give it a wrench at the same time, which does the hurting part with more speed. This done, bathe the part with vinegar, until the blood stops flowing; then apply the double compound as at first, for four or five mornings only, repeating again if necessary; and ninety-nine out of every hundred ring-bones or spavins will be cured, and most of them with only the first preparation. The Egyptiacum is made as follows:

3. Take verdigris and alum, in powder, of each, 1½ ozs.; blue vitriol, powdered, ½ oz.; corrosive sublimate, in powder, ⅛ oz.; vinegar, 2½ ozs.; honey, ½ lb.; boil over a slow fire until of a proper consistence. When used it must be stirred up well, as a sediment will deposit of some of the articles.

If the hair does not come out again after using the last blister, use the "Good Samaritan Liniment" freely on the part; but the first will never disturb the growth of hair. It is best always to commence this kind of treatment early in the season, so as to effect a cure before cold weather comes on.

4. O. B. Bangs' Cure for Ring-Bone and Spavin.—Take of cantharides, pulverized, British oil, oils of origanum and amber, and spirits of turpentine, of each, 1 oz.; olive oil, ½ oz.; oil of vitriol, 3 drs.; put all, except the vitriol, into alcohol, stir the mixture, then slowly add the vitriol, and continue to stir until the mixture is complete, which is known by its ceasing to smoke. Bottle for use.

DIRECTIONS.—Tie a piece of sponge upon a stick and rub the preparation, by this means, upon the spavin or ring-bone as long as it is absorbed into the parts; twenty-four hours after, grease well with lard; and in twenty-four hours more, wash off well with soap-suds. Mr. Bangs lives at Napoleon, Mich., and has sold books for me nearly two years. He says one application will generally be sufficient for spavins, but may need two; ring-bones always require two or three applications, three or four days apart, which prevents the loss of hair; if not put on oftener than once in three or four days, the hair not coming out at all. Said to cure wind-galls, splints, etc. He obtained five dollars for curing a neighbor's horse of ring-bone, with this preparation—stopping all lameness, but not removing the lump.

5. In very bad cases, of long standing, he thinks it preferable to use the following:

Take alcohol, 1 pt.; sal-ammoniac, corrosive sublimate, and oil of *spike, of* each, 1 oz.; mix.

Apply, by washing off and using lard afterwards, as above directed, washing also forty-eight hours after; and when dry, apply the first liniment once or twice, according to directions. The object of this last is to open the pores of the skin, and soften the lump.

6. Ring-Bone Remedy.—Pulverized cantharides, oils of spike, origanum, amber, cedar, Barbadoes tar, and British oil, of each, 2 ozs; oil of wormwood, 1 oz.; spirits of turpentine, 4 ozs.; common potash, ½ oz.; nitric acid, 6 ozs.; and oil of vitriol (sulphuric acid), 4 ozs.; lard, 3 lbs.

DIRECTIONS.—Melt the lard and slowly add the acids, stir well, and add the others, stirring until cold. Clip off the hair, and apply by rubbing and heating in. In about three days, or when it is done running, wash off with suds and apply again. In old cases it may take three or four weeks, but in recent cases two or three applications have cured. It has cured long standing cases.

7. Rawson's Ring-Bone and Spavin Cure.—Venice turpentine and Spanish flies, of each, 2 ozs.; euphorbium and aqua-ammonia, of each, 1 oz.; red precipitate, ½ oz; corrosive sublimate, ¼ oz.; lard, 1½ lbs. Pulverize all, and put into the lard. Simmer slowly over coals, not scorch or burn, and pour off free of sediment.

DIRECTIONS.—For ring-bones, cut off the hair and rub the ointment well into the lumps once in forty-eight hours. For spavins, once in twenty-four hours for three mornings, has perfectly cured them. Wash well, each application, with suds, rubbing over the place with a smooth stick to squeeze out a thick yellow matter.

Mr. Rawson, of Rawsonville, Mich., has cured some exceedingly bad cases of ring-bones, one as thick as a man's arm; and spavins as unpromising in size. If properly cooked, it will foam like boiling sugar.

8. Indian Method.—Bind a toad upon it; or two, if one does not cover it, and keep it on from 8 to 10 days.

An Indian cured a horse in this way, near St. Louis, for which he coveted, and received, a rifle. The cure proved permanent.

9. Bone-Spavins.—French Paste—$300 Recipe.—Corrosive sublimate, quicksilver, and iodine, of each, 1 oz., with lard only sufficient to form a paste.

DIRECTIONS.—Rub the quicksilver and iodine together, then adding the sublimate, and finally the lard, rubbing thoroughly.

Shave off the hair the size of the bone enlargement; then grease all around it, but not where the hair is shaved off; this prevents the action of the medicine, only upon the spavin; now rub in as much of the paste as will lie on a three-cent piece only, each morning for four mornings only; in from seven to eight days the whole spavin will come out; then wash out the wound with suds, soaking well, for an hour or two, which removes the poisonous effects of the medicine and facilitates the healing, which will be done by any of the healing salves; but I would prefer the green ointment to any other in this case.

Mr. Andrews, late of Detroit, who during his life knew a good horse, and also desired to know how to take good care of them, did not hesitate to pay three hundred dollars for this recipe after seeing what it would do. He removed a spavin from a mare's leg with it, and she afterwards won him more than the expense.

10. Bone-Spavins—Norwegian Cure.—S. B. Marshall, the champion horse-shoer and farrier, of White Pigeon, Mich., obtained this plan of an old Norwegian farrier, and also his plan of curing poll-evil, which see, and assures me that he has been very successful with them.

I obtained them of him for the purpose of publication, and sincerely think I can recommend them to all who need them :

Take dog's grease, ½ pt.; best oil of origanum, 1½ ozs.; pulverized cantharides, ½ oz. Mix, and apply each morning, for three mornings, heating it in with a hot iron each time; then skip 3 mornings, and apply again, as before. until it has been applied 9 times; after which wait about 10 days, and if it is not all gone, go over again in the same way.

He says it does not remove the hair, but that it cures the largest and worst cases. He gives a test for good oil of origanum, saying that much of it is reduced with turpentine; and if so reduced, that it will spread on the skin, like turpentine; but if good, that it does not spread on the skin, but stands, like other oil, where a drop is put on. I am not certain about the genuineness of this test; yet I find quite a difference in the spreading of the oils; for that which is known to contain turpentine spreads fast and freely, whilst that which is believed to be pure spreads very slowly, yet does finally spread. The pure is of a dark wine color, whilst the poor is of a lighter shade, and somewhat cloudy.

11. Spavin Liniment.—Oils of spike, origanum, cedar, British and spirits of turpentine, of each, 1 oz.; Spanish flies, pulverized, ½ oz.

Apply once in six to nine days only—removes the lump of spavins, splints, curbs, etc., if of recent occurrence; and the man of whom I obtained it, says he has scattered poll-evils before breaking out, with cedar oil, alone.

12. Another.—Alcohol and spirits of turpentine, of each, ½ pt., gum camphor, laudanum, and oil of cedar, of each, 1 oz.; oils of hemlock and rhodium, and balsam of fir, of each, ½ oz.; iodine, 1 dr., mix.

Apply night and morning, first washing clean and rubbing dry with a sponge; then rub the liniment into the spavin with the hand It causes a gummy substance to ooze out, without injury to the hair—has cured ring-bones, also removing the lumps in recent cases. It cured the lameness in a case of three years' standing.

13. Splint and Spavin Liniment.—Take a large-mouthed bottle, and put into it oil of origanum, 6 ozs.; gum camphor, 2 ozs.; mercurial ointment, 2 ozs.; iodine ointment, 1 oz.; melt by putting the bottle into a kettle of hot water.

Apply it to bone-spavins or splints twice daily, for four or five days. The lameness will trouble you no more. I have had men cure their horses with this liniment, and remark that this recipe alone was worth more than the price of the book.

14. Bog-Spavin and Wind-Gall Ointment, also good for Curbs, Splints, Ring-Bones, and Bone-Spavin.—Take pulverized cantharides, 1 oz.; mercurial ointment, 2 ozs.; tincture of iodine, 1½ ozs.; spirits of turpentine, 2 ozs.; corrosive sublimate, 1½ drs.; lard. 1 lb.

Mix well, and when desired to apply, first cut off the hair, wash well and anoint, rubbing it in with the hand, or glove, if preferred. Two days after, grease the part with lard, and in two days more, wash off and apply the ointment again. Repeat the process every week, as long as necessary.

SWEENY—Liniment.—Alcohol and spirits of turpentine, of each, 8 ozs.; camphor gum, pulverized cantharides, and capsicum, of each, 1 oz ; oil of spike, 3 ozs. Mix.

Perhaps the best plan is to tincture the capsicum first, and use the

tincture instead of the powder, by which means you are free of sediment; bathe this liniment in with a hot iron. The first case has yet to be found where it has not cured this disease when faithfully followed.

2. Another.—Sal-ammoniac, 2 ozs.; corrosive sublimate, 1 oz.; alcohol, 1 qt.; water, 1 qt.; pulverize and mix.

This last has cured many cases of sweeny, and also kidney complaints, known by a weakness in the back, of horses or cattle. Bathe the loins with it; and give one to two table-spoons at a dose, daily.

POLL-EVIL AND FISTULA—Positive Cure.—Common potash, ¼ oz.; extract of belladonna, ½ dr.; gum arabic, ¼ oz. Dissolve the gum in as little water as practicable; then, having pulverized the potash, unless it is moist, mix the gum water with it, and it will soon dissolve; then mix in the extract, and it is ready to use; and it can be used without the belladonna, but it is more painful without it, and does not have quite as good an effect.

DIRECTIONS.—The best plan to get this into the pipes is by means of a small syringe, after having cleansed the sore with soap-suds; repeat once in two days, until all the callous pipes and hard fibrous base around the poll-evil or fistula is completely destroyed. Mr. Curtis, a merchant of Wheaton, Ill., cured a poll-evil with this preparation, by only a single application, as the mare estrayed and was not found for two months—then completely sound; but it will generally require two or three applications.

This will destroy corns and warts, by putting a little of it upon the wart or corn, letting it remain from five to ten minutes, then wash off and apply oil or vinegar, not squeezing them out, but letting nature remove them.

2. Potash, to Make.—If you cannot buy the potash, called for in the last recipe, you can make it by leeching best wood ashes and boiling down the lye to what is called black salts, and continuing the heat in a thick kettle until they are melted; the heat burns out the black impurities and leaves a whitish-gray substance, called potash.

This potash, pulverized and put into all the rat holes about cellars, causes them to leave in double-quick time, as mentioned in the "Rat Exterminator." The black salts will do about as well for rats, but is not quite so strong. They get their feet into it, which causes a biting worse than their own, and they leave without further ceremony.

Potash making in timbered lands is carried on very extensively; using the thick, heavy potash-kettle to boil and melt in, then dipping it out into three and five-pail iron kettles to cool.

3. Poll-Evil and Fistula—Norwegian Cure.—Cover the head and neck with two or three blankets; have a pan or kettle of the best warm cider vinegar, holding it under the blankets; then steam the parts by putting hot stones, brick, or iron, into the vinegar, and continue the operation until the horse sweats freely; doing this 3 mornings and skipping 3, until 9 steamings have been accomplished.

Mr. Marshall says, the pipes, by this time, will seem to have raised up and become loose, except the lower end, which holds upon the bone or tendons, like a sucker's mouth; the apparent rising being caused by the going down of the swelling in the parts. Now tie a skein of silk around the pipes and pull them out; washing the parts with weak copperas water until the sore heals up and all is well. He told me that he cured, in this way, a horse which had interfered until a pipe had formed at the place of interference, upon the leg, that when drawn out was as long as his finger. See the "Norwegian Cure for Bone-Spavin."

4. Another.—Rock salt and blue vitriol, of each, 1 oz.; copperas, ½ oz.; pulverize all finely, and mix well.

Fill a goose-quill with the powder, and push it to the bottom of the pipe, having a stick in the top of the quill, so that you can push the powder out of the quill, leaving it at the bottom of the pipe; repeat again in about four days, and in two or three days from that time you can take hold of the pipe and remove it, without trouble.

5. Poll-Evil, to Scatter.—Take a quantity of mandrake root, mash, and boil it; strain and boil down until rather thick, then form an ointment by simmering it with sufficient lard for that purpose.

Anoint the swelling once a day, for several days, until well. It has cured them after they were broken out, by putting it into the pipes a few times, also anointing around the sore.

6. Another.—Poll-evils and fistulas have been cured by pushing a piece of lunar caustic into the pipe, then filling the hole with currier's oil. Or:

7. Another.—Corrosive sublimate the size of a common bean, pulverized and wrapped in tissue paper, and pressed to the bottom of the pipes, leaving it in eight days, then take out, and applying the blue ointment, (kept by druggists,) has cured them. Or:

8. Another.—Arsenic, the size of a pea, treated in the same way, has cured the same disease. But if the Norwegian plan will work as recommended, it is certainly the best of all.

9. Another.—Oil of vitriol, put into the pipes, has cured many cases.

I found one man, also, who had cured poll-evil by placing a barrel of water about fifteen feet high, on a platform, upon two trees—administering a shower-bath daily upon the sore; drawing the water by a faucet, through a dinner horn placed little end down; tying the horse so as to keep him in position until the water all runs out. Fifteen or twenty baths cured him, but it broke out again the next season, when a few more baths made a final cure.

LOOSENESS OR SCOURING IN HORSES OR CATTLE—In Use Over Seventy Years.—Tormentil root, powdered. DOSE.—For a horse or cow, 1 to 1½ ozs. It may be stirred in 1 pt. of milk and given, or it may be steeped in 1½ pts. of milk, then given from 3 to 5 times daily until cured.

It has proved valuable also for persons. DOSE.—For a person, would be from one-half to one tea-spoon steeped in milk; but if used for persons, I should recommend that half as much rhubarb be combined with it.

An English gentleman from whom it was obtained, had been familiar with its use nearly eighty years, and never knew a failure, if taken in any kind of seasonable time. The tormentil, or septfoil, is a European plant, and very astringent.

2. Beef Bones for Scours.—Burn the bones thoroughly and pulverize finely; then give 1 table-spoon in some dry feed, 3 times daily, until checked.

This preparation has thirty years' experience of an American gentleman, near Fentonville, Mich., to recommend it to general favor.

3. Scours and Pin-Worms of Horses and Cattle.—White ash bark, burnt to ashes, and made into rather a strong lye; then mix ½ pt. of it with warm water, 1 pt., and give all, 2 or 3 times daily.

Whenever it becomes certain that a horse or cow is troubled with *pin*-worms, by their passing from the bowels, it is best to administer

the above, as they are believed to be the cause, generally, of scours, and this remedy carries off the worms, thus curing the inflammation by removing the cause.

HORSE OINTMENT—De Gray or Sloan's.—Resin, 4 ozs.; beeswax, 4 ozs.; lard, 8 ozs.; honey, 2 ozs. Melt these articles slowly, gently bringing to a boil; and as it begins to boil, remove from the fire and slowly add a little less than a pint of spirits of turpentine, stirring all the time this is being added, and stir until cool.

This is an extraordinary ointment for bruises, in flesh or hoof, broken knees, galled backs, bites, cracked heels, etc., etc.; or when a horse is gelded, to heal and keep away flies. It is excellent to take fire out of burns or scalds in human flesh also.

CONDITION POWDERS—Said to be St. John's.—Fenugreek, cream-of-tartar, gentian, sulphur, saltpetre, resin, black antimony, and ginger, equal quantities of each, say 1 oz.; all to be finely pulverized; cayenne, also fine, half the quantity of any one of the others, say ½ oz. Mix thoroughly.

It is used in yellow water, hide-bound, coughs, colds, distemper, and all other diseases where condition powders are generally administered. They carry off gross humors and purify the blood. DOSE.—In ordinary cases give two tea-spoons once a day, in feed. In extreme cases give it twice daily. If these do not give as good satisfaction as St. John's or any other condition powder that costs more than double what it does to make this, then I will acknowledge that travel and study are of no account in obtaining information.

2. Cathartic Condition Powder.—Gamboge, alum, saltpetre, resin, copperas, ginger, aloes, gum-myrrh, salts, and salt, and if the horse is in a very low condition, put in wormwood, all the same quantities, viz., 1 oz. each. DOSE.—One table-spoon in bran, twice daily; not giving any other grain for a few days; then once a day, with oats and other good feed.

This last is more applicable for old worn-down horses which need cleaning out and starting again into new life, and in such cases, just the thing to be desired.

HORSE LINIMENT—For Stiff-Neck from Poll-Evils.—Alcohol, 1 pt.; oil of cedar, origanum, and gum camphor, of each, 2 ozs.; oil of amber, 1 oz.; use freely.

2. English Stable Liniment—Very Strong.—Oil of spike, aqua ammonia, and *oil* of turpentine, of each, 2 ozs.; sweet oil and oil of amber, of each, 1½ ozs.; oil of origanum, 1 oz. Mix.

Call this good for anything, and always keep it in the stable as a strong liniment; the Englishman's favorite for poll-evils, ring-bones and old lameness, inflammations, etc. If much inflammation, however, it will fetch the hair, but not destroy it.

3. Nerve and Bone Liniment.—Take beef's gall, 1 qt.; alcohol, 1 pt.; volatile liniment, 1 lb.; spirits of turpentine, 1 lb.; oil of origanum, 4 ozs.; aqua ammonia, 4 ozs.; tincture of cayenne, ½ pt.; oil of amber, 3 ozs.; tincture of Spanish flies, 6 ozs. Mix.

Uses too well known to need description. This is more particularly applicable to horse flesh.

4. Liniment for One Shilling a Quart.—Best vinegar, 2 qts.; saltpetre, pulverized, ½ lb.; mix, and set in a warm place, until dissolved.

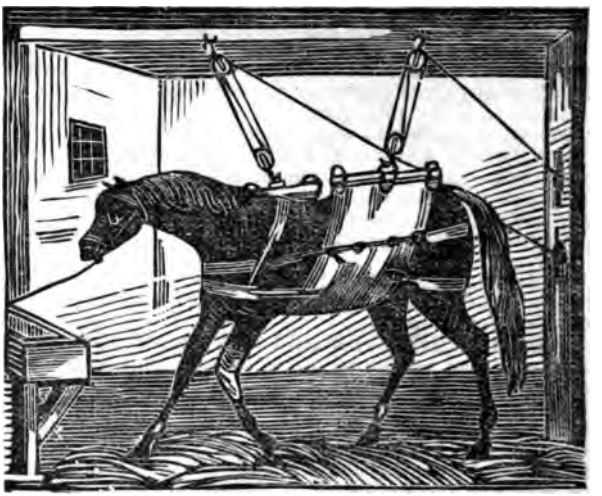
It will be found valuable for spavins, sprains, strains, bruises, old swellings, etc.

BROKEN LIMBS—Treatment, instead of inhumanly Shooting

the Horse.—In the greater number of fractures it is only necessary to partially sling the horse by means of a broad piece of sail or other strong cloth, (as represented in the figure,) placed under the animal's belly, furnished with two breechings and two breast-girths, and by means of ropes and pulleys attached to a cross-beam above, he is elevated or lowered, as may be required.

It would seldom be necessary to raise them entirely off of their feet, as they will be more quiet, generally, when allowed to touch the ground or floor. The head-stall should be padded, and ropes reaching each way to the stall, as well as forward. Many horses will plunge about for a time, but soon quiet down, with an occasional exception. When they become quiet, set the bone, splint it well, padding the splints with batting, securing carefully; then keep wet with cold water, as long as the least inflammation is present, using light food, and a little water at a time, but may be given often.

The use of the different buckles and straps will be easily understood.



SUPPORTING APPARATUS IN LAMENESS OF HORSES.

If he is very restive, other ropes can be attached to the corner rings, which are there for that purpose, and will afford much additional relief to the horse.

I knew a horse's thigh to crumble upon the race-course, without apparent cause, which lost him the stake he would have easily won. He was hauled miles upon a sled, sling, and cured by his humane owner. Then let every fair means be tried, before you consent to take the life, even of a broken-legged horse.

WOUND BALSAM—For Horses or Human Flesh.—Gum benzoin, in powder, 6 ozs.; balsam of tolu, in powder, 3 ozs.; gum storax, 2 ozs.; frankincense, in powder, 2 ozs.; gum myrrh, in powder, 3 ozs.; *Socotorine* aloes, in powder, 3 ozs.; alcohol, 1 gal. **Mix them all to-**

gether, and put them in a digester, and give them a gentle heat for 3 or 4 days, then strain.

A better medicine can hardly be found in the *materia medica* for healing fresh wounds in every part of the body, particularly those on the tendons or joints. It is frequently given internally along with other articles, to great advantage, in all colds, flatulency, and in other debilities of the stomach and intestines. Every gentleman, or farmer, ought to keep this medicine ready prepared in his house, as a family medicine, for all cuts, or recent wounds, either among his cattle or any of his family. Thirty or forty drops, on a lump of sugar, may be taken at any time, for flatulency, or pain at the stomach; and in old age, where nature requires stimulation.—*Every Man His Own Farrier.*

GREASE-HEEL AND COMMON SCRATCHES—To Cure.—Lye made from wood ashes, and boil white oak bark in it until it is quite strong, both in lye and bark ooze; when it is cold, it is ready for use.

First wash off the horse's legs with dish water or castile soap; and when dry, apply the ooze with a swab upon a stick which is sufficiently long to keep out of his reach, as he will tear around like a wild horse, but you must wet all well once a day, until you see the places are drying up. The grease-heel may be known from the common scratches by the deep cracks, which do not appear in the common kind Of course this will fetch off the hair; but the disease has been known to fetch off the hoof; then to bring on the hair again, use salve made by stewing sweet elder bark in old bacon; then form the salve by adding a little resin according to the amount of oil when stewed, about a quarter of a pound to each pound of oil.

2. Another.—Verdigris, ½ oz.; whisky, 1 pt., are highly recommended for grease-heel.

3. Common Scratches.—Use sweet oil, 6 ozs.; borax, 2 ozs.; sugar of lead, 2 ozs.; mix and apply twice daily, after washing off with dish-water, and giving time to allow the legs to dry.

These plans have been used for years, by George Clemm, of Logansport, Indiana, and he assured me that the worst cases will be cured, of either disease, in a very few days.

4. Another.—Copperas and chamber-lye are known to be good for common scratches, applied, as the last, after washing with dish-water and drying. This last can be tried first, as it is easily obtained, and if it does not succeed you will not fail with the other.

SADDLE AND HARNESS GALLS—Bruises, Abrasions, Etc.—Remedy.—White lead and linseed-oil mixed as for paint, is almost invaluable in abrasions, or galls from the saddle or collar, or from any other cause; it will speedily aid the part in healing.

Applied with a brush to the leg of a horse, the outer coating of hair and skin of which was torn off, caused it to heal and leave no scar. It is good for scratches and all sores upon horses, or other animals, and equally good for men. It forms an air-tight coating, and soothes pain. Every farmer should keep a pot and brush ready for use. White lead is the carbonate of the metal, and when pure is very white. That having a greyish tint is impure, being generally adulterated. For use as a paint, a lead color is produced by adding lamp black, and a drab or stone color, by adding burned umber.

In applying it for scratches, first wash them clean with soap and water, then apply. Some persons prefer lamp oil. If that is used, you will mix both together until the oil assumes a light straw color. When the horse comes in at night, his legs should be washed perfectly clean

and rubbed perfectly dry. Then apply the mixture, rubbing it well to the skin. Two or three applications are sufficient to effect a perfect cure, no matter how bad the case may be.—*Correspondence of the Country Gentleman.*

To give confidence in this, I would say that a lady, at Lafayette, Indiana, told me she cured herself of salt-rheum with white-lead and sweet oil only.

2. Another.—Alcohol and extract of lead, of each, 2 ozs.; soft water, 4 ozs.; spirits of sal-ammoniac, 1 oz.; white copperas, ½ oz. Mix all and shake as used.

"Knowlson's Complete Farrier" speaks very highly of this last preparation, which can be tried, should the first above fail.

3. Sores from Chafing of the Bits.—Chloroform and sulphuric ether, equal parts of each. Keep closely corked.

Sponge off the mouth with water every time the bits are taken out; then wet well with the mixture. It will also be found valuable to remove soreness from any cause, on man or horse.

4. Another.—White ashes and spirits of turpentine, of each, 1½ table-spoons; black pepper, ground, 1 table-spoon; lard to make 1 pt. of all, mix well and anoint.

HEAVES—Great Relief.—Heaves, a common name for any difficulty in the breathing of a horse, is susceptible of great alleviation by attention to the character and quantity of food to be eaten by the animal, as every one knows. If a horse suffering from this disease, is allowed to distend his stomach at his pleasure, with dry food entirely and then to drink cold water, as much as he can hold, he is nearly worthless. But if his food be moistened, and he be allowed to drink a moderate quantity only at a time, the disease is much less troublesome.

A still farther alleviation may be obtained from the use of balsam of fir and balsam of copaiba, 4 ozs. each; and mix with calcined magnesia sufficiently thick to make it into balls; give a middling sized ball night and morning for a week or 10 days. This gives good satisfaction, and is extensively sold by Eberbach & Co., druggists of this city.

2. Another.—An old Farrier assures me that lobelia, one tea spoon, once a day, in his feed, for a week, and then once a week; that you can hardly tell whether a horse ever had the heaves or not.

3. Another.—H. Sisson, another Farrier, gives me a cure which somewhat resembles the ball first given under this head, and thus each one supports the other.

He takes calcined magnesia, balsam of fir, and balsam of copaiba, of each, 1 oz.; spirits of turpentine, 2 ozs.; and puts them all into 1 pt. of the best cider vinegar, and gives for a dose 1 table-spoon in his feed, once a day, for a week; then every other day for 2 or 3 months.

The horse will cough more at first, but looser and looser until cured. Wet his hay with brine, and also wet his feed.

4. Another.—Mr. Bangs, highly recommends the following: Lobelia, wild turnip, elecampane and skunk cabbage, equal parts of each. Make into balls of common size, and give one for a dose, or make a tincture, by putting 4 ozs. of the mixture into 2 qts. of spirits; and after a week put 2 table-spoons into their feed, once a day for a month or two.

5. Another.—Oyster shells, 1 peck; burn into lime and pulverize; mix a single handful of it with ½ gill of alcohol, then mix it with the oats each morning until all is given.

This for bellows-heaves has done very much good. Horse-radish grated and put in with the feed has benefited. Cabbage, as common

feed, is good to relieve, or any juicy food, like pumpkins, etc., etc., will be found to relieve very much Farmers who have their horses always at home, can keep them comfortably with some of the foregoing directions; but broken-winded horses might as well be knocked in the head as to attempt to travel with them, expecting any satisfaction to horse or driver.

6. Another.—A correspondent of the *Country Gentleman* says that "heaves may be greatly alleviated by feeding raw fat pork.

"Commence with a piece of pork, say a cubic inch, chopped very fine, and mixed with the wetted grain or cut feed, twice a day for two or three days. Then from day to day increase the quantity and cut less fine, until there is given with each feed such a slice as usually by a farmer's wife is cut for frying—nearly as large as your hand, cut into fifteen or twenty pieces.

"Continue this for two weeks, and the horse is capable of any ordinary work without distress, and without showing the heaves. I have experience and observation for the past ten years as proof of the above." —[*J., of Burlington, Vt.*]

DISTEMPER—To Distinguish and Cure.—If it is thought that a horse has the distemper, and you do not feel certain, wet up bran with rather strong weak lye—if not too strong they will eat it greedily; if they have the distemper, a free discharge from the nostrils and a consequent cure will be the result, if continued a few days; but if only a cold, with swellings of the glands, no change will be discovered.

SHOEING HORSES—For Winter Travel.—N. P. Willis, of the *Home Journal*, in one of his recent Idlewild letters, says:

"You have discovered, of course, that you cannot have uninterrupted winter riding with a horse shod in the ordinary way. The sharp points of the frozen mud will wound the frog of the foot; and with snow on the ground, the hollow hoof soon collects a hard ball which makes the footing very insecure. But these evils are remedied by a piece of sole leather nailed on under the shoe—a protection to the hoof which makes a surprising difference in the confidence and surefootedness of the animal's step."

FOUNDER—Remedy.—Draw about 1 gal. of blood from the neck; then drench the horse with linseed-oil, 1 qt.; now rub the fore legs, long and well, with water as hot as can be borne without scalding.

This remedy entirely cured a horse which had been foundered on wheat, two days before the treatment began.

PHYSIC—Ball for Horses.—Barbadoes aloes from 4 to 5 or 6 drs., (according to the size and strength of the horse); tartrate of potassia, 1 dr.; ginger and castile soap, of each, 2 drs.; oil of anise, or peppermint, 20 drops; pulverize, and make all into one ball with thick gum solution.

Before giving a horse physic, he should be prepared for it by feeding scalded bran, in place of oats, for two days at least, giving also water which has the chill taken off, and continue this feed and drink during the operation. If it should not operate in forty-eight hours, repeat half the dose.

2. Physic for Cattle.—For cattle, take *half* only of the dose, above, for a horse, and add to it glauber salts, 8 ozs.; dissolve all in gruel, 1 qt., and give as a drench: for cattle are not easily managed in giving balls, neither is their constitution adapted to dry medicine.

There is not the need of preparation for cattle, generally, as for horses, from the fact of their not being kept up to grain, if they are, however, let the same precautions be observed as in "Physic Ball for Horses."

HOOF-AIL IN SHEEP—Sure Remedy.—Muriatic acid and butter of antimony, of each, 2 ozs.; white vitriol, pulverized, 1 oz. Mix.

DIRECTIONS.—Lift the foot and drop a little of it upon the bottom. It will need to be applied only once or twice a week—as often only as they limp, which shows that the foot is becoming tender again. It kills the old hoof, and a new one soon takes its place. Have no fears about the result; apply the medicine as often as indicated, and all is safe.

It has proved valuable in growing off horse's hoofs, when snagged, or contraction made it necessary.

EYE-WATER—For Horses and Cattle.—Alcohol, 1 table-spoon; sugar of lead, 1 tea-spoon; rain water ½ pt.

Wash the eye freely, two or three times daily. But I prefer the "Eye Water" as prepared for persons; and allow me here to say that what is good for man, in the line of medicine, is good for a horse, by increasing the dose to correspond.

TAMING—Principles Applied to Wild and Vicious Horses.—I have thought in closing up this Department, that I could not devote a page to a better purpose than to the so-called *secret* of taming. For it *is* a secret, but it lies in a different point from what is *generally* believed, which I will attempt to show.

Several persons are advertising books for taming wild horses, and other persons are going about teaching the art to classes in private. Probably the pupils get their money's worth. But, why do so many fail? *The whole secret lies in this, that many persons can never handle a horse, with all the instruction in the world—it is not in them.* They cannot establish a sympathy between themselves and the horse, and if they become horse *trainers*, they have only mistaken their calling, and the money they laid out is perhaps as cheap a way as they could be taught their mistake.

To be a *successful* horse trainer, he must have a *sympathy* with the horse, and a *personal* power of control. This reminds us of an old gentleman's remarks on the subject of sweeny. He said: "There were a great many recipes of penetrating oils, applications, etc., but the great secret was in *faith*," without which no person will persevere a sufficient length of time with either of them. This holds good in all diseases, as well as in handling or taming a horse.

The mystery or secret, then, is in *knowing* how, and having the *stamina* (power) to do it.

As for recipes, they consist in using the horse-castor or wart, which grows upon the inside of the leg, grated fine, oil of cumin, and oil of rhodium, kept separate in air-tight bottles; these all possess peculiar properties for attracting and subduing animals.

"Rub a little oil of cumin upon your hand, and approach the horse in the field, on the windward side, so that he can smell the cumin. The horse will let you come up to him without trouble.

"Immediately rub your hand gently on the horse's nose, getting a little of the oil on it. You can then lead him anywhere. Give him a little of the castor on a piece of loaf-sugar, apple, or potato.

"Put eight drops of the oil of rhodium into a lady's thimble. Take the thimble between the thumb and middle finger of your right hand, with the fore-finger stopping the mouth of the thimble to prevent the oil from running out whilst you are opening the mouth of the horse.

"As soon as you have opened the horse's mouth, tip the thimble over upon his tongue, and he is your servant. He will follow you like a pet dog." Very doubtful.—[AUTHOR.

"Ride fearless and promptly, with your knee pressed to the side of the horse, and your toes turned in and heels out; then you will always be on the alert for a shy or sheer from the horse, and he can never throw you.

"If you want to teach him to lie down, stand on his nigh or left side; have a couple of leather straps, about six feet long; string up his left leg with one of them around his neck; strap the other end of it over his shoulders; hold it in your hand, and when you are ready, tell him to lie down, at the same time gently, firmly, and steadily pulling on the strap, touching him lightly with a switch. The horse will immediately lie down. Do this a few times, and you can make him lie down without the straps.

"He is now your pupil and friend. You can teach him anything, only be kind to him—be gentle. Love him and he will love you. Feed him before you do yourself, shelter him well, groom him yourself, keep him clean, and at night always give him a good bed."

It will be perceived, by reference to the following item from *Bell's Life*, that the secret for taming horses, by which Mr. Rarey has made himself so rich and famous, instead of being a divination of his own, was probably obtained by him through some accidental contact with an old volume, which has long disappeared from observation, and hardly held a place in public libraries.

A correspondent sends us the following: "In the Gentleman's Farrier, by Bartlett, (sixth edition) published in 1762, (one hundred years ago,) page 293, is the following: 'The method proposed by Dr. Bracken, is to tie up one of the fore feet close, and to fasten a cord or small rope about the other fetlock, bringing the end of it over the horse's shoulders; then let him be hit or kicked with your foot behind that knee, at the same time pulling his nose down strongly to the manger. You will bring him upon his knees, where he should be held till he is tired which cannot be long, but if he does not lie down soon, let him be thrust sideways against his quarters, to throw him over; by forcing him down several times in this way, you may teach him to lie down, at the same words you first used for that purpose." You will see that Mr. Rarey's system is exactly the same.

From the foregoing it will be seen that he *obtained* the knowledge, and naturally possessing the firmness, *fearless energy* and *muscle* sufficient to back the whole, he has become *the horse tamer of the world.*

Without all these qualifications no one need undertake the business, no matter how often he pays five dollars for recipes or instruction.

APPENDIX TO FARRIERS' DEPARTMENT.

BY THE PUBLISHER.

ENGLISH RECIPES.—The following Recipes are very useful:

Horse Ointment.—Resin, 4 ozs.; bees' wax, 3 ozs.; hog's lard, ½ lb.; common turpentine, 6 ozs.; dissolve in a pipkin with gentle heat; then add 2 ozs. of fine verdigris, stir well together, and strain the whole through a coarse cloth; cool for use. This is a good ointment for a wound, or bruise in flesh or hoof, broken knees, galled backs, bites, cracked heels, mallenders, or, when a horse is gelded, to heal and keep off the flies.

Purge for a Horse.—Aloes, 1 oz.; rhubarb, 2 drs.; oil of mint, 4 drops, made into a ball with honey.

Cordial for a Horse.—If the horse is weak through travel, give him a pint of warm ale, with 1 oz. of diapente in it. Diapente will comfort his bowels, drive out cold and wind, and may cause him to carry his food the longer. Diapente is composed of gentian root, bay berries, bay leaves, birthwort, mint, and myrrh.

Sore Back.—If the saddle bruises his back and makes it swell, a greasy dishcloth laid on hot, and a cloth over it, bound on fifteen minutes, (with a surcingle), and repeated once or twice, will sink it flat. If it is slight, wash it with a little salt and water only. Alter the saddle, that it may not press on the tender part, for a second bruise will be worse than the first.

Splint.—The splint is a fixed, callous, bony excrescence, growing upon the flat of the inside or outside, of the shank bone; a little under, and not far from the knee, and may be seen and felt. CURE.—To take it off, first cut the hair close, then gently beat it with a round rule until it appears hot to the touch, then rub hard soap all around the edge of the splint, to prevent the blister affecting any other part, and apply on the splint the following blister ointment: mercurial ointment, 1 oz.; Spanish flies, 2 drs., mixed well together; a little of this may be applied once a week until the splint is removed.

Spavin.—The Spavin is of the same nature, and appears, in like manner, on the instep bone behind, not far below the hough. CURE.—The same blister as recommended for splints: if it fails, firing and turning the horse to grass for three months, is the best method.

HORSES—To Water.—Water is as necessary to a horse as food, and horses are found to thrive better by having water *ad libitum* than by being stinted. The best way is to have the manger divided, so that corn can be in one half and the water in the other: by this plan the horse takes the water as he wants it, and not when it is offered to him. The plan of having the water in the manger has been tried by a great number of the London merchants, and found to answer admirably.

How to Manage an Unmanageable Horse.—A beautiful and high-spirited horse would never allow a shoe to be put on his feet, or any person to handle his feet. In an attempt to shoe this horse *recently* he resisted all efforts, kicked aside everything but an anvil

and came near killing himself against that, and finally was brought back to his stable unshod. This defect was just on the eve of consigning him to the plow, where he might work barefoot, when an officer in our service, lately returned from Mexico, took a cord about the size of a common bed-cord, put it in the mouth of the horse like a bit, and tied it tightly on the animal's head, passing the left ear under the string, not painfully tight, but tight enough to keep the ear down and the cord in place. This done, he patted the horse gently on the side of the head, and commanded him to follow; and instantly the horse obeyed, perfectly subdued and as gentle and obedient as a well-trained dog; suffering his feet to be lifted with entire impunity, acting in all respects like an old stager. The gentleman who thus furnished this exceedingly simple means of subduing a very dangerous propensity, intimated that it was practiced in Mexico and South America in the management of wild horses.—*New York Commercial Advertiser.*

MAGGOTS IN SHEEP—To Destroy.—Water, 1 qt.; spirit of turpentine, a table-spoon; sublimate of mercury, as much as will lie upon a shilling; cork in a bottle, with a quill through the cork, so that the mixture may come a little at a time. Shake before using. Pour a little of the mixture upon the spots where the maggots are, and they will creep upon the top of the wool, and fall off dead. Apply afterwards a little train oil to the place.

Liniment for Bruises, Sprains, and Spavins.—We are indebted to Mr. Garry Briggs, of Dexter, for the following recipe. He has dealt largely in horses for forty years. He says that for bruises and sprains it is the best thing he ever used, and keeps it constantly on hand. He has known several bone-spavins cured by it:

Oil of amber, 1 oz.; oil of wormwood, 1 oz.; oil of tansy, 1 oz.; oil of spike, 1 oz.; camphor gum, 2 ozs.; ammonia, 2 ozs.; small piece of Castile soap; spirits of wine, 1 pt. Rub in thoroughly with the hand. This recipe is rather strong for most cases, and will bear a little water added in ordinary cases, or where there is much inflammation; but in severe cases use full strength.

The following recipes were furnished us by Mr. Horace Rosier, of this county, one of the most successful farriers, and an extensive dealer in horses and cattle, for over thirty years. The recipe for ringbone and spavin has been sold alone for several hundred dollars, and is a sure cure if used in any kind of season. He has cured a great many with it:

Weak Eyes, or Hooks.—First, rowel below the eyes and in the jaws—then, if the eyes are much inflamed, bleed two gallons from the neck vein, and use the eye wash or eye lotion every morning; move the rowels every day, and let them remain in 15 or 20 days. If the eye shows a white speck in the center, there is no cure for it—the nerve of the eye is affected; but as long as the eye runs water, there are hopes of it, or the eyelids swell. All young horses are liable to have weak eyes.

Eye Lotion—How to make it.—Take a good quality of linseed-oil, 1 pt., add to it 2 ozs. of spirits of ether, gum camphor ½ oz. Let it stand in some warm place until the oil cuts the gum, and it is fit for use. Apply it to the eye every morning with a soft feather; get it into the eyes as well as possible. This is better in winter than the wash; but the wash is best for summer.

Eye Wash.—Take of sugar of lead, 2 drs.; white vitriol, 1 dr.; laudanum, 1 dr.; add to this 1 qt. of soft water; let it stand 6 or 8 hours, and it is fit for use. Wash the eyes out well every morning, after first washing the eyes well with cold water; follow this up for 3

or 4 weeks, and then if the eyes are not much better, bleed and give a mild physic. The horse should be kept on low diet, and not overheated, or worked too hard; scalded bran and oats are good.

Fistula or Poll Evil.—Cause, a bruise or stroke of some kind produces fever in the muscles. Cure before it breaks: run a rowel or seton from the lower part of the swelling to the top through the center of the enlargement, then make the following lotion: Take of salamoniac, 2 ozs.; turpentine, ½ pt.; linseed-oil and spirits of tar, of each, 4 ozs.; shake well, and apply it all over the swelling every other day; let the seton stay in until all the swelling is gone down—move it every day, and when all is gone draw it out. Bleed when you first open it; keep the part clean.

Fistula After it Breaks.—If you find by probing it that the pipes run down towards surface, run down a seton through the bottom of the pipe, and anoint it with the following ointment: Take of mercurial ointment, 4 ozs.; cantharides, ½ oz.; anoint the seton every day until it runs a bloody matter, then draw it out if the pipes run down to the center of the shoulders, then run down a piece of the nitre of silver to the bottom, and use the liquid in the next following recipe: apply it on the swelling and on the sore every day; keep the part clean with soap and water.

Liquid for Fistula or Poll Evil.—Take olive oil, 6 ozs.; turpentine, ½ oz.; oil of origanum, ½ oz.; American or sinikey oil, 3 ozs. Mix well and apply it to the part affected, after the nitre of silver has been used; apply this every few days, until it heals up; the cleaner you keep the part the better.

Stiff Shoulders or Sweeney.—Rowel from the top of the shoulder blade down as far as there is no pealing; first, cut through the skin, and then two thin fibres or strippings; use the blunt needle, move it back and forward five or six inches; draw in a tape or seton, and the next morning wet it with the tincture of cantharides; do this every other day, move them every day—wash the part clean—let the tape stay in until the matter changes to blood; this is for both diseases—let him run out if possible; he will be well in six or eight weeks; if for sweeney you may work him all the time.

Hoof Bound or Tender Feet.—Cause of this is fever in the feet. Founder, or gravel, the symptoms are hot feet and a drawing in one inch from the top of the feet at the heels. Never have the feet spread at the heels nor rasped above the nail holes, for it will do the foot an injury. Follow the directions given here. Use either the hoof ointment or the hoof liquid; apply it according to the printed directions. For hoof bound or tender feet, apply it all around the top of the hoof down one inch every third day; if for split hoof, apply it every day. First, have a stiff shoe on the foot, and cleanse the cut or crack. Never cut or burn for it.

Hoof Ointment.—Take resin, 4 ozs.; bees' wax, 6 ozs.; lard, 2 lbs.; melt together, pour it into a pot, and turpentine, 3 ozs.; finely powdered verdigris, 2 ozs.; tallow, 1 lb,—stir all until it gets cool. This is one of the best medicines for the hoof ever used. It is good for corks or bruises of the feet. Follow the directions.

Hoof Liquid.—For tender feet, hoof bound, etc. Linseed-oil, or neatsfoot oil, ½ pt., of either; turpentine, 4 ozs.; oil of tar, 6 ozs.; origanum, 13 ozs.; shake this well and apply it as the directions for the ointment tells. This is the best if the horse has been lame long—it penetrates the hoof sooner than the ointment—both of them should be *applied at night*, so that the horse can go to work in the morning. He *need not* lose one day's work.

Poof Evil, or Thrush, Grease Heels.—Cause of this disease is [illegible] feed, and want of exercise or standing in a filthy stable. Symptoms, well known—a discharge of offensive matter from the frog of the foot, and around the top of the foot; often the frog of the foot will come out, then you must put a stiff shoe on to keep the foot from contracting.

CURE.—Bleed, and physic, and poultice the foot with boiled turnips, add some fine ground charcoal—this must be done every night, for two or three nights, then wash the foot clean with castile soap and soft water, and apply the blue ointment every day—keep the horse on a clean floor, and he will be well in twelve days.

How to Make the Blue Ointment.—Take the ointment of resin, 4 ozs.; finely ground verdigris, ½ oz.; turpentine, 2 ozs.; mutton tallow, 2 lbs.; oil of origanum, ½ oz.; tincture of iodine, ½ oz.; mix all well. This is one of the best medicines that can be made, for scratches, hoof-evil, cuts, and is good to apply on fistula, after the bowels have been taken out.

Lung Fever.—Symptoms,—the horse is taken with a chill, then breaks out in a cold clammy sweat,—holds down his head—never offers to lay down, but groans when made to move—his ears and legs are deathly cold. The cause of this is change from warm to cold stable, too much cold water when warm.

CURE.—Bleed four quarts from the neck vein, and take one ounce of aconite, add to it ½ gal. of cold water; drench him with one gill of it every three hours, blister him over the lungs, then give him water to drink that hay has been boiled in, add to each gallon of it 1 ounce of gum arabic, and ½ ounce of spirits of nitre,—give this every four hours, rub well, foment and rub the legs with alcohol and camphor, until they get warm—do not move him. Keep him in open stall if hot weather.

Disease of the Liver, or Yellow Water.—Symptoms—the eyes run and turn yellow, the base of the mouth the same, the hair and mane gets loose, and he often is lame in the right shoulder, and very costive.

CURE.—Give the following ball every morning until it operates upon the bowels. Take aloes, 7 drs.; calomel, 1 dr.; ginger, 4 drs.; and molasses enough to make it into a ball, wrap it in paper and give it; give scalded bran and oats, grass if it can be got; when his bowels have moved, stop the physic, and give one ounce of the spirits of camphor, in ½ pint of water every morning, for twelve days, rowel in the breast, and give a few doses of cleansing powder. Turn him out.

Cleansing Powder.—This is used when the blood is out of order—good to restore lost appetite,—yellow water, and wherever it is to be used it is spoken of. Take one lb. of good ginger, 4 ounces of powdered gentian, 1 ounce of nitre, ½ ounce of crude antimony, 3 ounces of fenugreek, 3 ounces of elecampane, 5 ounces resin, mix all well, give one large spoonful every day in wet food. This is perfectly safe.

Nasal Gleet, or Discharge from the Eye and Nose.—The cause of this is neglect in distemper, or over-heat or cold; this is a white discharge from the nose, and is not contagious—and can be cured.

CURE.—Stop working him—take of alum, ½ lb.; resin, ½ lb.; blue vitriol, ½ lb.; grind and mix well with ½ lb. of ginger; give one large spoonful every night and morning—bleed one gallon. Keep him out of the wet, and do not work him.

Disease of the Kidneys.—Caused by feeding dirty or musty grain, hard drawing, overloading him, or by giving too much turpentine.

CURE.—Blister over the kidneys, and give the following pills eve day: Take resin, 1 oz.; juniper berries, ground fine, 1 oz.; flour, 2 oz.; make all into a stiff paste, divide into 7 pills, give one every night, then use the cleansing powder every day; if the horse has trouble to get up when he lies down, swing him up for two weeks,—give no food but that which is clean: this is half of the cure. Do not work nor ride him.

How to make the White Ointment.—For rheumatism, sprains, burns, swellings, bruises, or any inflammation on man or beast, chapped hands, or lips, black eyes, or any kind of bruise. Take fresh butter, 2 lbs.; tincture of iodine, ½ oz.; oil of origanum, 2 ozs.; mix this well for fifteen minutes and it is fit for use; apply it every night; rub it in well with your hand; if for human flesh lay on warm flannel.

Black Liniment.—This is good to apply on poll evil—fistula. Take of linseed-oil, ½ pt.; tincture of iodine, 3 ozs.; turpentine, 4 ozs.; oil of origanum, 1 oz.; shake all well, and apply it every day; rub it in well with your hand; wash the part clean with soap and water before applying it. This is good on any swelling.

Sore Mouth or Tongue—Called Canker or Thrush.—Symptoms—the mouth runs water, the horse coods or throws the hay out of his mouth. The cause of this is often from frosty bits being put into the mouth, or by eating *poisonous* weeds.

CURE.—Take of borax, 3 drs.; sugar of lead, 2 drs.; alum, ½ oz.; vinegar, 1 pt.; sage tea, 1 pt.; shake all well together, and wash the mouth out every morning—give no hay for twelve days.

Groggy Knees.—The cause of this is sprains or over-driving, or by having corks, and no toes on the shoes. This can be cured in the first stages, but if of long standing, there is no cure.

CURE.—Have shoes made thick at the toe and thin at the heels, take linseed oil, ½ pt.; alcohol, 4 ozs.; camphor spirits, 1 oz.; laudanum, 2 ozs.; shake, and apply to the back part of the legs, rub it in well every four days; still increase the thickness of the shoes at the toe.

How to Remove Warts.—Cut them out by the roots—take the tenackulum or hook, run it through the warts, and draw and cut round it, and draw it out; if it should bleed too much take 5 grains of nitre of silver, and 2 ounce of watar; wet a sponge, and merely touch the part with this wash, and it will stop them—treat it as any fresh wound—still every time you wash it scratch the scab off, so the scar will be small. This is the only sure way to cure them.

Bots.—Symptoms—very much like that of the colic; the ears and the legs are hot, and sometimes the sweat will start in the flank and breast.

CURE.—Make one-half gallon of sage tea, add to it one ounce of alum, drench with one-half of it, and if he is not better in thirty or forty minutes, give the balance, and bleed one gallon—in six hours give a mild physic; this will never fail if given in time. Never give turpentine, as many do; it will affect the kidneys.

Colic.—Symptoms—the horse lays down and gets up often, and looks around at his flank; his ears and legs are cold. Cause of this is cold water and change of food, over quantity of acid collecting in the stomach.

CURE.—Take laudanum, ½ oz.; sulphuric ether, 1 oz.; water, milk warm, ½ pt.; drench, and if not better in forty or fifty minutes, bleed, and repeat the drench. Do not allow the horse to be moved, while sick.

Founder in the First Stages.—Symptoms—the horse is stiff, his feet hot, and often trembles, very thirsty.

CURE.—Bleed from the neck vein three or four gallons, or until he falls, then give the following: Aloes, ½ oz.; gamboge, 4 drs.; oil of sassafras, ½ oz.; make this into a pill, give it, and give him all the sassafras tea he will drink; turn up his feet and fill them full of boiling hot lard, bathe his legs in hot water, and rub them well. This will never fail to cure in forty-eight hours.

Sick Stomach—Debility.—Symptoms—the horse refuses to eat, thirsty, hangs his head, reels when he walks, eyes dull.

CURE.—Bleed one-half gallon, then if he will eat a mash give him one; give no hay; then give him one-half ounce of rhubarb every night until it moves his bowels, then take of gentian root, 4 ozs.; fenugreek, 2 ozs.; nitre, ½ oz.; mix, and give a large spoonful every day; do not give him too much to eat when his appetite returns.

Distemper.—Symptoms—swelling under the jaws, cannot swallow.

CURE.—Bleed two gallons, and physic, then if a tumor is found under the jaws, open it—if not, apply the "General Liniment" to the swelling, or the "White Ointment"—make it break on the outside if possible, then give of the cleansing powder for ten or twelve days, in mashes. Turn him out if you can get pasture.

General Liniment.—Turpentine, ½ pt.; linseed oil, ½ pt.; aqua ammonia, 4 ozs.; tincture of iodine, 1 oz.; shake it all well. This is used for different things spoken of in the different recipes, sores or swellings, sprains, etc.

Sprains of the Stifle.—Symptoms—the horse holds up his foot, moans when moved, swells in the stifle—this is what is called stifling; there is no such thing as this joint getting out of place.

CURE.—Bleed two gallons, foment the stifle with hot water, rub it dry, then bathe it well with the "General Liniment" every morning and night, give him a mash and he will be well. Never allow any stifle shoe or cord on the foot or leg.

Broken Knees.—This is caused by the horse falling on the knees. First, cleanse the part of all gravel and dirt, then wash them,—take two gills of alcohol, one-half ounce of arnica, tie the knees up in coarse linen, and if they swell in twenty four hours, bleed, and keep the bowels open with mashes, and then apply the blue or the iodine ointment every other day; do not use the horse until he is perfectly well, or it may cause the knees to break out again.

Worms.—Symptoms—the horse eats, but will not thrive, his belly gets big, his hair stays.

CURE.—Give one quart of strong tea, made of wormwood, at night, the next day give 7 drachms of aloes, 2 drachms calomel, make it into a ball and give it; give no cold water for forty-eight hours, make it milk warm; give him two or three bran-mashes, and some of the cleansing powder; if he shows any more symptoms repeat the dose in three weeks. This will never fail.

Physic Ball.—Aloes, ½ oz.; gamboge, 3 drs.; oil of juniper, 20 drops; make into a pill with a few drops of molasses, wrap it up in thin paper and grease it, draw out the tongue with the left hand, place the gag in the mouth, and run the pill back with the right hand until it drops off, let the head down and give a sup of water. First, prepare the horse by giving one or two mashes.

Iodine Liniment.—Get one ounce of the grease iodine, one pint of alcohol, let this stand in the sun two days, and this is the tincture of iodine. Take 2 ounces of tincture and one-half pound of lard, mix

well, and you have the iodine ointment. This is used wherever the recipes refer to the ointment.

Big or Milk Leg.—This is brought on by a hurt, a want of action in the absorbent system—it is dropsy of the muscles of the leg.

CURE.—Apply the "Liquid Blisterer" every three hours until it blisters, then in six hours grease with soft oil of any kind, then in eight days wash the part clean and apply it again—repeat it for three or four times, then use the iodine ointment—if this does not remove it all, apply the spavin medicine; this will remove it all.

Liquid Blisterer.—Take alcohol, 1 pt.; turpentine, ½ pt.; aqua ammonia, 4 ozs.; oil of origanum, 1 oz.; apply this as spoken of every three hours until it blisters—do not repeat oftener than once in eight days, or seven at least, or it will kill the hair.

Mange and Surfeit.—Caused by running out in wet weather, over-driving and poor cleaning. Symptoms—the horse rubs and is itchy all over, broken out in scabs.

CURE.—Bleed and physic, then take sulphur one-half lb., two lbs. of lard, mix well, grease the part affected every three or four days, stand the horse in the sun until all dries in, give him a few doses of the "Cleansing Powder."

How to Tame the Wild Horse.—Halter him, and then take the warts from the leg, dry and powder, then blow it up his nose, then take the oil of rodium, drop a few drops on your hand, and rub it over his nose; this will make him follow you, and you can do anything you wish. I paid Perry Plancher $20 for this recipe; he is the Arabian horse tamer.

How to Make a Horse Stand to be Castrated.—Put chloroform on a sponge and hold it to his nose a few seconds until he closes his eyes; remove it, and alter him. This can be given to perform any operation—you can buy it at the drug store for seventy-five cents per pound.

Spavin and Ringbone Medicine.—Take of cantharides, 2 ozs.; mercurial ointment, 4 ozs.; tincture of iodine, 5 ozs.; turpentine, 4 ozs.; corrosive sublimate, 5 drs.; mix well with 2 lbs. of lard, color it if you like. Follow the directions here given.

If for ringbone or bone spavin, cut off the hair from the part affected and merely grease the lump with the ointment. Rub it in well with the naked hand. In two days grease the part with lard, and in four days wash it off with soap and water and apply the ointment again. So repeat it every four days. If for windgalls, or bog-spavin, or curb, apply the ointment every six days.

Johnston's Liniment.—Oil of origanum, 1 oz.; alcohol, ½ pt.; oil of cedar, ½ oz.; oil of cloves, ½ oz.; turpentine, ½ oz.; olive oil, 8 ozs. Shake all well. This is used for almost all complaints of the muscles.

How to Cure Corns.—Take off the shoe, cut out the corns and drop in a few drops of muriatic acid, then make the shoes so they will not bear on the part affected. Apply the "Hoof Liquid" to the hoof to remove the fever. This is a sure treatment. I never knew it to fail.

Opodeldoc.—Take alcohol, ½ gal.; castile soap, 2 lbs.; gum camphor, 4 ozs.; oil of amber, 2 ozs.; place the alcohol into a pot in hot water, shave up the soap and keep it hot until all dissolves, and you have the old original opodeldoc.

Fresh Wounds.—First, stop the blood by tying the arteries, or by applying the following wash: Nitre of silver, 4 grs.; soft water, 1 oz.; wet the wound with this and then draw the edges together by stitches one inch apart, then wash clean, and if any swelling in twenty-four *hours, bleed*, and apply the "Blue Ointment," or any of the liniments *spoken of.* Keep the bowels open.

Green Ointment.—Take 6 pounds of lard, put into a 10 gallon kettle, add 2 gallons of water, cut jimpson weeds, and fill them in and cook them four to six hours, slow, and cook all the water out, then put into jars, add to each pound of ointment one ounce of turpentine. This is a cheap and good stable ointment—good for scratches, galls, cuts, etc.

Lampers.—All young horses are liable to this trouble—it is nothing but inflammation of the gums.

CURE.—Bleed, or scarify the gums—never burn, for it spoils the teeth, and adds to the cause of the disease. Give a bran mash, rub the gums with salt—give the "Cleansing Powders."

How to Make the Drops to Make Old Horses Young, or Get Up and Howl!—Take the tincture of asafœdita, 1 oz.; tincture of cantharides, 1 oz.; oil of anise, 1 oz.; oil of cloves, 1 oz.; oil of cinnamon, 1 oz.; antimony, 2 ozs.; fenugreek, 1 oz.; fourth proof brandy, ½ gal.; let it stand ten or twelve days, and give ten drops in a pail of water—or one gallon.

How to Make Ointment Like Sloan's.—Take mutton tallow, 4 lbs.; bees' wax, ½ lb.; resin, ½ lb.; turpentine, 3 ozs.; melt over a fire, and when partly cold add the turpentine, and you have the same ointment Sloan sells to cure everything—try it, and prove its value.

Button Farcin.—Cause, over heat, high feeding, and no exercise. Symptoms—the limbs swell up and break out in running sores.

CURE.—In first stages bleed and physic, then take gentian, 2 ozs.; ginger, 3 ozs.; make this into a stiff paste, divide into twelve parts, add to each part separately 10 grains of arsenic, make into pills, give one morning and evening, until it makes his mouth sore, then wash the sores clean, and apply the "Blue Ointment" to the wounds—if not much better in three weeks—bleed and repeat the pills. Apply the different liniments to the legs if they swell. Be *careful* not to get the matter on a wound, or it *will kill* you.

Water Farcy.—This is a swelling along under the chest and forward to the breast. Bleed, rowel in the breast, and all along the swelling, six inches apart, apply the "General Liniment" to the swelling, move the rowels every day, let them stay in until the swelling goes down. Give soft food, mashes, with the "Cleansing Powder" in it—this is dropsy. Many causes for it. See Yoat's work on it.

Diabetes—Too Free Discharge of Urine, or Cannot Hold His Water.—CURE.—Give ½ oz. of the tincture of cantharides every morning for ten or twelve days, and if not entirely well repeat it again, and bleed one gallon from the neck—give clean food—the cause is rotton or musty grain, or too free use of turpentine—keep him open with mashes and green food.

Contraction of Tendons of the Neck.—Symptoms—often the head is drawn around to one side, again, the horse cannot get his head to the ground. Cause of this is spraining the horse, and rheumatism produces the contraction.

CURE.—If it is taken in the first stages, bleed from the neck two gallons, then foment or bathe the part well with hot water, rub it dry and take the "General Liniment" and apply it every day, two or three times; this will cure it if it is of long standing; then blister all along the part affected with the "Liquid Blister"; do this every three weeks until he is well, and rub with the "White Ointment."

For Rheumatism.—Take alcohol, ½ pt.; oil of origanum, ½ oz.; cayenne, ½ oz.; gum myrrh, ½ oz.; one tea-spoon of lobelia, and let all stand over night, then bathe the part affected. This is the best medicine I ever saw—I paid $5 for this recipe.

CABINET MAKERS' DEPARTMENT.

POLISH—For New Furniture.—Alcohol, 98 per cent., 1 pt.; gums copal and shellac, of each 1 oz.; dragon's blood, ½ oz. Mix, and dissolve by setting in a warm place.

Apply with a sponge (it is best in the sun or a warm room) about three coats, one directly after the other as fast as dry, say fifteen or twenty minutes apart; then have a small bunch of cotton batting tied up in a piece of woolen; wet this in alcohol and rub over the surface well; now go over the surface with a piece of tallow, then dust on rotten stone from a woolen bag and rub it with what is often called the heel of the hand; now wipe it off with cotton cloth, and the more you rub with this last cloth, the better will be the polish.

Although this professes to be for new work, it does not hurt the looks of old, not the least bit. Try it, all who want their furniture to show a gloss and answer in place of looking-glasses.

If soldiers will try it on their gun-stocks, they will find it just the thing desired.

2. Polish for Reviving Old Furniture, Equal to the "Brother Jonathan."—Take alcohol, 1 ½ ozs.; spirits of salts (muriatic acid), ½ oz.; linseed-oil, 8 ozs.; best vinegar, ½ pt.; and butter of antimony, 1½ ozs.; mix, putting in the vinegar last.

It is an excellent reviver, making furniture look nearly equal to new, and really giving a polish to new work, always shaking it to used. But if you cannot get the butter of antimony, the following will be the next best thing:

3. Polish for Removing Stains, Spots, and Mildew, from Furniture.—Take of 98 per cent. alcohol, ½ pt.; pulverized resin and gum shellac, of each ¼ oz. Let these cut in the alcohol; then add linseed oil, ½ pt.; shake well, and apply with a sponge, brush, or cotton flannel, or an old newspaper, rubbing it well after the application, which gives a nice polish.

These are just the thing for new furniture when sold and about to be taken out of the shop; removing the dust and giving the new appearance again.

4. Jet, or Polish for Wood or Leather, Black, Red, or Blue.—Alcohol (98 per cent.),1 pt.; sealing wax, the color desired, 3 sticks; dissolve by heat, and have it warm when applied. A sponge is the best to apply it with.

For black on leather it is best to apply copperas water first, to save extra coats; and paint wood the color desired also, for the same reason. On smooth surfaces, use the tallow and rotten stone as in the first polish. It may be applied to carriage-bodies, cartridge-boxes, dashes, fancy baskets, straw bonnets, straw hats, etc.

***FURNITURE*—Finishing with only One Coat of Varnish, not**

using Glue, Paste, or Shellac.—Take boiled linseed-oil and give the furniture a coat with a brush; then immediately sprinkle dry whiting upon it and rub it in well with your hand, or a brush which is worn rather short and stiff, over all the surface—the whiting absorbs the oil; and the pores of the wood are thus filled with a perfect coat of putty, which will last for ages; and water will not spot it nor have any effect upon it.

For mouldings and deep creases in turned work, you can mix them quite thick, and apply them together, with the old brush; but on smooth surfaces, the hand and dry whiting are best. If black walnut is the wood to be finished, you will put a trifle of burned umber in the whiting,—if for cherry, a little Venetian-red; beech or maple will require less red. Only sufficient is to be used, in either case, to make the whiting the color of the wood being finished. Bedstead-posts, banisters, or standards for bedsteads, and all other turned articles, can have the finish put on in the lathe, in double quick time; spreading a newspaper on the lathe to save the scattering whiting, applying it with the hand or hands, having an old cloth to rub off the loose whiting which does not enter the pores of the wood,—the same with smooth surfaces also.

This preparation is cheap; and it is a wonder that furniture men have not thought of it before. Three coats of varnish without it are not as level as one with it. From the fact that some of the varnish enters the pores of the wood and does not dry smooth; but with the pores filled with this preparation, of course it must dry smooth and level, without rubbing down.

STAINS—Mahogany on Walnut, Natural as Nature.—Apply aquafortis by means of a rag tacked to a stick; for if you use a brush it will very soon destroy it. Set the furniture in the hot sun to heat in the aquafortis; if no sun, heat it in by a stove or fire.

It is better if heated in, but does quite well without heating. Finish up in every other way as usual.

This finish is applicable to fancy tables, stands, lounges, coffins, etc., and equally beautiful on knots and crotches, giving walnut the actual appearance of mahogany, and as it is *appearances* only that most people depend upon, why will this not do as well as to transport timber from beyond the seas?

2. Rose-wood Stain, Very Bright Shade—Use Cold.—Take alcohol, 1 gal.; camwood, 2 ozs.; let them stand in a warm place 24 hours; then add extract of logwood, 3 ozs.; aquafortis, 1 oz.; and when dissolved it is ready for use; it makes a very bright ground, like the most beautiful rose-wood—one, two, or more coats, as you desire, over the whole surface.

This part makes the bright streaks or grains; the dark ones are made by applying, in waves, the following:

Take the iron turnings or chippings, and put vinegar upon them; let it stand a few hours and it is ready to apply over the other, by means of a comb made for graining; or a comb made from thinnish India-rubber; the teeth should be rather good length, say half an inch, and cut close together, or further apart, as desired; and with a little practice, excellent imitation will be made.

This, for chairs, looks very beautiful to apply the darkening mixture by means of a flat, thin-haired brush, leaving only a little of the red color in sight; and if you want to make the cringles, as sometimes seen in rose-wood, it is done with a single tooth or pen, bearing on sometimes hard and then light, etc., etc. All can and must be got by *practice*.

The above stain is very bright. If, however, you wish a lower shade, use the next recipe.

3. Rose-wood Stain—Light Shade.—Take equal parts of logwood and redwood chips, and boil well in just sufficient water to make a strong stain; apply it to the furniture while hot; 1 or 2, or even 3 coats may be put on, one directly after the other, according to the depth of color desired.

For the dark lines, use the iron chippings as in the above recipie. Or, if a rose-pink is desired, use the following:

4. Rose-Pink, Stain and Varnish, also Used to Imitate Rose-wood.—Put an ounce of potash into a quart of water, with red-sanders, 1½ ozs.; extract the color from the wood, and strain; then add gum shellac, ½ lb.; dissolve it by a quick fire. Used upon logwood stain for rose-wood imitation.

5. Black Walnut Stain.—Whenever persons are using walnut which has sap-edges, or if two pieces are being glued together which are different in shade, or when a poplar pannel, or other wood, is desired to be used to imitate black walnut, you will find the following to give excellent satisfaction:

Spirits of turpentine, 1 gal.; pulverized gum asphaltum, 2 lbs Put them into an iron kettle and place upon a stove, which prevents the possibility of fire getting at the turpentine; dissolve by heat frequently stirring until dissolved. Put into a jug or can while hot.

When desired to use any of it, pour out and reduce with turpentine to the right shade for the work being stained With a little practice you can make any shade desired. If used with a brush over a red stain, as mentioned in the rose-wood stain recipes, especially for chairs and bedsteads, it very nearly resembles that wood. Mixing a little varnish with the turpentine when reducing it prevents it from spotting and causes it to dry quicker. By rubbing a little lamp-black with it, you can make it a perfect black, if desired.

6. Cherry Stain.—Take rain water, 3 qts.; anotta, 4 ozs.; boil in a copper kettle until the anotta is dissolved; then put in a piece of potash the size of a common walnut, and keep it on the fire about half an hour longer, and it is ready for use. Bottle for keeping.

This makes poplar or other light-colored woods so near the color of cherry that it is hard to distinguish; and even improves the appearance of light-colored cherry.

VARNISHES—Black, with Asphaltum.—Spirits of turpentine, 1 gal.; pulverized gum asphaltum, 2¼ lbs.; dissolve by heat, over a stove fire.

It is applied to iron, frames of door plates, back-grounds, in crystal painting, etching upon glass and also for fence-wire, or screens which are to go into water above mills to turn leaves and drift-wood, etc.

2. Patent Varnish, for Wood or Canvass.—Take spirits of turpentine, 1 gal.; asphaltum, 2¼ lbs.; put them into an iron kettle which will fit upon a stove, and dissolve the gum by heat. When dissolved and a little cool, add copal varnish, 1 pt., and boiled linseed-oil, ½ pt. When cold it is ready for use. Perhaps a little lamp-black would make it a more perfect black.

If done over a common fire, the turpentine will be very likely to take fire and be lost, and perhaps fire the house or your clothes.

This is valuable for wood, iron, or leather; but for cloth, first make a sizing by boiling flax-seed, one quart, in water, one gallon, applying of this for the first coat; the second coat of common thick black paint; and lastly a coat of the varnish. Some think that sperm oil, the same quantity, makes a little better gloss.

3. Varnish, Transparent, for Wood.—Best alcohol, 1 gal.; nice gum shellac, 2½ lbs. Place the jug or bottle in a situation to keep it just a little warm, and it will dissolve quicker than if hot or left cold.

This varnish is valuable for plows, or any other article where you wish to show the grain of the wood, and for pine, when you wish to finish up rooms with white, as the "Porcelain Finish." A coat or two of it effectually prevents the pitch from oozing out, which would stain the finish.

If this stands in an open dish, it will become thick by evaporation; in such cases add a little more alcohol, and it is as good as before. Some do use as much as three and a half pounds of shellac, but it is too thick to spread well; better apply two or more coats, if necessary. When a black varnish is wanted, you can rub lamp-black with this, for that purpose, if preferred before the asphaltum, last given.

BARBERS' AND TOILET DEPARTMENT.

HAIR DYE—In Two Numbers.—No. 1.—Take gallic acid, ½ oz.; alcohol, 8 ozs.; soft water, 16 ozs.; put the acid in the alcohol, then add the water.

No. 2.—Take for No. 2, crystalized nitrate of silver, 1 oz.; ammonia, strongest kind, 3 ozs.; gum arabic, ½ oz.; soft water, 6 ozs. Observe, in making it, that the silver is to be put into the ammonia, and not corked until it is dissolved; the gum is to be dissolved in the water, then all mixed, and it is ready for use.

Barbers will probably make this amount at a time, as it comes much cheaper than in small quantities; but if families or others, for individual use, only wish a little, take drachms, instead of ounces, which you see will make only one-eighth of the amount.

DIRECTIONS FOR APPLYING.—First, wash the whiskers or hair with the "shampoo," and rinse out well, rubbing with a towel until nearly dry; then with a brush apply No. 1, wetting completely, and use the dry towel again to remove all superfluous water: then with another brush (tooth-brushes are best,) wet every part with No. 2, and it becomes instantaneously black; as soon as it becomes dry, wash off with hard water, then with soap and water; apply a little oil, and all is complete.

The advantages of this dye are, that if you get any stain upon the skin, wipe it off with a cloth at the time, and the washing removes all appearances of stain; and the whiskers or hair never turn red, do not crack, and are a beautiful black.

However, cyanuret of potassium, 1 dr., to 1 oz. of water, will take off any stain upon the skin, arising from nitrate of silver; but it is poison, and should not touch sore places nor be left where children may get at it.

Persons whose hair is prematurely gray, will find dye less trouble in using, than the restoratives; for when once applied, nothing more needs being done for several weeks; whilst the restoratives are only slow dyes, and yet need several applications. But that all may have the chance of choosing for themselves, I give you some of the best restoratives in use.

HAIR RESTORATIVES AND INVIGORATORS.—Equal to Wood's, for a Trifling Cost.—Sugar of lead, borax, and lac-sulphur, of each, 1 oz.; aqua ammonia, ½ oz.; alcohol, 1 gill. These articles to stand mixed for 14 hours; then add bay rum, 1 gill; fine table salt, 1 table-spoon; soft water, 3 pts.; essence of bergamot, 1 oz.

This preparation not only gives a beautiful gloss, but will cause hair to grow upon bald heads, arising from all common causes; and turn gray hair to a dark color.

MANNER OF APPLICATION.—When the hair is thin or bald, make two applications daily, until this amount is used up, unless the hair has *come out* sufficiently to satisfy you before that time; work it to the

roots of the hair with a soft brush or the ends of the fingers, rubbing well each time. For gray hair one application daily is sufficient. It is harmless, and will do all that is claimed for it, does not cost only a trifle in comparison to the advertised restoratives of the day, and will be found as good or better than most of them.

2. Invigorator.—Vinegar of cantharides, 1 oz.; cologne-water, 1 oz.; and rose-water, 1 oz.; mixed and rubbed to the roots of the hair, until the scalp smarts, twice daily, has been very highly recommended for bald heads, or where the hair is falling out.

If there is no fine hair on the scalp, no restorative nor invigorator on earth can give a head of hair. See remarks after No. 8.

3. Another.—Lac-sulphur and sugar of lead, of each, 1 dr.; tannin and pulverized copperas, each, 32 grs.; rose-water, 4 ozs.; wetting the hair once a day for 10 or 12 days, then once or twice a week will keep up the color.

If it is desired only to change gray hair to a dark color, the last will do it; but where the hair is falling out, or has already fallen, the first is required to stimulate the scalp to healthy action.

4. Another.—Lac-sulphur and sugar of lead, of each, 1 oz.; pulverized litharge (called lithrage), 1½ ozs.; rain water, 1 qt.; applying 8 mornings and skipping 3, until 9 applications—give a nice dark color.

I obtained this of one of the Friends, at Richmond, Ind., and for turning white or gray hair, it is a good one. The litharge sets the color, as the sulphate of iron does in the next. There is but little choice between them.

5. Another.—Rain water, 6 ozs.; lac-sulphur, ½ oz.; sugar of lead, ¼ oz.; sulphate of iron (copperas), ⅛ oz.; flavor with bergamot essence, if desired; and apply to the hair daily until sufficiently dark to please.

All the foregoing restoratives will change, or color the gray or white hair black, or nearly so; but let who will tell you that his restorative will give your hair its original color, just let that man go for all he is worth at the time; for as time advances, his worth will be beautifully less.

6. Hair Invigorator.—A Wheeling barber makes use of the following invigorator to stop hair from falling out, or to cause it to grow in; it is a good one; so is the one following it.

Take bay rum, 1 pt.; alcohol, ½ pt.; castor oil, ½ oz.; carbonate of ammonia, ¼ oz.; tincture of cantharides, ½ oz. Mix, and shake when used. Use it daily, until the end is attained.

7. Another.—Carbonate of ammonia, 1 oz., rubbed up in 1 pt. of sweet oil. Apply daily until the hair stops falling out, or is sufficiently grown out.

The last is spoken of very highly in England, as a producer of hair, "where the hair ought to grow," and does not.

8. Strong sage tea, as a daily wash, is represented to stop hair from falling out; and what will stop it from falling, is an invigorator, and consequently good.

There is not a liniment mentioned in this book, but which, if well rubbed upon the scalp daily for two or three months, will bring out a good head of hair. When the scalp has become glossy and shining, however, and no fine hair growing, you may know that the hair follicle, or root, is dead; and nothing can give a head of hair in such cases, any more than grain can grow from ground which has had none scat-

tered upon it. This condition may be known by the shining or glistening appearance of the scalp.

The heads as well as bodies should be often washed with soap and clean water; but if that is neglected too long, it becomes necessary to use something stronger to remove the grease and dandruff—then the following will be found just the thing to be desired:

SHAMPOOING MIXTURES—For Five Cents per Quart.—Purified carbonate of potash, commonly called salts of tartar, 1 oz.; rain water, 1 qt.; mix, and it is ready for use.

Apply a few spoons of it to the head, rubbing and working it thoroughly; then rinse out with clean soft water, and dry the hair well with a coarse, dry towel, applying a little oil or pomatum to supply the natural oil which has been saponified and washed out by the operation of the mixture. A barber will make at least five dollars out of this five cents' worth of material.

2. Another excellent shampoo is made by using aqua ammonia, 3 ozs., salts of tartar, ¼ oz.; alcohol, ½ oz.; and soft water, 2½ pts., and flavoring with bergamot. In applying, rub the head until the lather goes down; then wash out.

The next recipe, also, makes as good a shampoo mixture as I wish, for it kills so many birds at one throw that I do not wish to throw any other.

RENOVATING MIXTURES—For Grease Spots, Shampooing, and Killing Bed-Bugs.—Aqua ammonia, 2 ozs.; soft water, 1 qt.; saltpetre, 1 tea-spoon; variegated shaving soap, 1 oz., or 1 three-cent cake finely shaved or scraped; mix all, shake well, and it will be a little better to stand a few hours or days before using, which gives the soap a chance to dissolve.

DIRECTIONS.—Pour upon the place a sufficient amount to well cover any grease or oil which may get spilled or daubed upon coats, pants, carpets, etc., sponging and rubbing well, and applying again if necessary to saponify the grease in the garment; then wash off with clear cold water.

Don't squirm now, for these are not half it will do. Some people fly entirely off the handle when a preparation is said to do many things. For my part, however, I always admire an article in proportion to the labor which can be performed by it or with it. This preparation will shampoo like a charm; raising the lather in proportion to the amount of grease and dandruff in the hair. It will remove paint even from a board, I care not how long it has been applied, if oil was used in the paint—and yet it does not injure the finest textures, for the simple reason that its affinity is for grease or oil, changing them to soap, and thus loosening any substance with which they may be combined.

If it is put upon a bed-bug, he will never step afterwards; and if put into their crevices, it destroys their eggs, and thus drives them from the premises.

A cloth wet with it will soon remove all the grease and dirt from the doors which are much opened by kitchen hands.

2. Renovating Clothes—Gentlemen's Wear.—To warm soft water, 4 gals., put in 1 beef's gall; saleratus, ½ lb Dissolve.

Lay the garment on a bench, and scour every part thoroughly by dipping a stiff brush into the mixture. Spots of grease and the collar must be done more thorough, and longer continued than other parts, and rinse the garment in the mixture by raising up and down a few times, then the same way in a tub of soft cold water; press out the

water and hang up to dry; after which it needs brushing the way of the nap, and pressing well under a damp cloth.

Beet's gall will set the color on silks, woolen, or cotton—one spoon to a gallon of water is sufficient for this purpose. Spotted bombazine or bombazetta washed in this will also look nearly equal to new.

3. Faded or Worn Garments—To Renew the Color.—To alcohol 1 qt., add extract of logwood, ¼ lb.; loaf sugar, 2 ozs.; blue vitriol, ¼ oz.; heat gently until all are dissolved; bottle for use.

DIRECTIONS.—To one pint of boiling water put three or four teaspoons of the mixture, and apply it to the garment with a clean brush; wetting the fabric thoroughly; let dry; then suds out well and dry again to prevent crocking; brush with the nap to give the polish. This may be applied to silks and woolen goods having colors; but is most applicable to gentlemen's apparel.

COLOGNES—Imperial.—Take oils of bergamot, 1 oz.; neroli, 1 dr.; jessamine, ¼ oz.; garden lavender, 1 dr.; cinnamon, 5 drops; tincture of benzoin, 1½ ozs.; tincture of musk, ¼ oz.; deodorized or cologne alcohol, 2 qts.; rose water, 1 pt. Mix.

Allow the preparation to stand several days, shaking occasionally, before filtering for use or bottling. This is rather expensive, yet a very nice article. See "Rose-Water."

2. Cologne for Family Use—Cheaper.—Oils of rosemary and lemon, each, ¼ oz.; bergamot and lavender, each, 1 dr.; cinnamon, 8 drops; clove and rose, each, 15 drops; common alcohol, 2 qts. Mix, and shake from 2 to 3 times daily for a week.

Cologne need only be used in very small quantities; the same is true of highly flavored oils or pomades; as too much, even of a good thing, soon disgusts those whom they were intended to please.

HAIR OILS—New York Barbers' Star.—Castor oil, 6½ pts.; alcohol, 1½ pts.; oil of citronella, ¼ oz; lavender, ⅛ oz.; mixed, and shaken when used, makes one of the finest oils for the hair in use.

I have been told that this amount of alcohol does not cut the oil. Of course, we know that; that is, it does not become clear, neither do we want it to do so; it combines with the oil, and destroys all the gumminess and flavor peculiar to castor oil, by which it becomes one of the best oils for the hair which can be applied. Gills, spoons, or any other measure will do as well, keeping the proportion of flavoring oils; and if the citronella cannot be got, use some other oil in its place; none are equal to it, however.

2. Macassar, or Rose.—Olive oil, 1 qt.; alcohol, 2½ ozs.; rose oil, ½ dr.; tie chipped alkanet root, 1 oz., into 2 or 3 little muslin bags; let them lie in the oil until a beautiful red is manifested; then hang them up to drain, for if you press them you get out a sediment you do not wish in the oil.

3. Fragrant, Home-Made.—Collect a quantity of the leaves of any of the flowers that have any agreeable fragrance; or fragrant leaves, as the rose, geranium, etc.; card thin layers of cotton, and dip into the finest sweet oil; sprinkle a small quantity of salt on the flowers: a layer of cotton and then a layer of flowers, until an earthenware vessel, or a wide-mouthed glass bottle, is full.

Tie over it a piece of a bladder; then place the vessel in the heat of the sun; and in fifteen days a fragrant oil may be squeezed out, resembling the leaf used. Or, an extract is made by putting oil upon the flowers or leaves, in about the same length of time. These are very suitable for the hair, but the oil is undoubtedly the best.

4. Pomade—Ox-Marrow.—One of the most beautiful pomades, both in color and action, is made as follows:

Take beef's marrow, 1 lb.; alkanet root, not chipped, 1 oz., put them into a suitable vessel and stew them as you would render tallow, strain through two or three thicknesses of muslin, and then add, of castor oil, ¼ lb.; bay rum, 1 gal.; which takes away the peculiar freshness of the marrow; then use the extract of the common rose geranium to give it the flavor desired.

Half as much suet as marrow, also makes a very nice article, and can be used where the marrow is not easily obtained.

BALM OF A THOUSAND FLOWERS.—As strange as it may seem, some of the most astonishingly named articles are the most simple in their composition. Although thousands of dollars have been made out of the above named article, it is both cheap and simple:

Deodorized alcohol, 1 pt.; nice white-bar soap, 4 ozs.; shave the soap when put in; stand in a warm place until dissolved; then add oil of citronella, 1 dr.; and oils of neroli and rosemary, of each, ½ dr.

It is recommended as a general perfume; but it is more particularly valuable to put a little of it into warm water, with which to cleanse the teeth.

RAZOR-STROP PASTE.—Take the very finest superfine flour of emery and moisten it with sweet oil; or you may moisten the surface of the strop with the oil, then dust the flour of emery upon it, which is perhaps the best way.

Nothing else is needed. You must not take any of the coarse flour, nothing but the finest will do. It is often mixed with a little oil and much other stuff which is of no use, and put up in little boxes and sold at two shillings, not being more than three cents' worth of emery.

APPENDIX TO BARBERS' AND TOILET DEPARTMENT.

BY THE PUBLISHER.

COMPLEXION.—We will give a few words of advice, as an assistance in the preservation of the complexion.

Rise early, and go to bed early. Take a plenty of exercise. Keep the pores of the skin open by perfect cleanliness. Be moderate in eating and drinking. Do not often frequent crowded assemblies, and *shun cosmetics, and washes for the skin.* We will give a few harmless recipes. But most of the powders and washes used dry up the skin, and in the end make it rough.

Be careful always in washing to wipe your skin dry, particularly your hands; rub them briskly for some time. If hands are left moist after washing, they will chap, crack and become red. Honey is excellent to rub over chapped hands, or anoint them with cold cream or glycerine before retiring to rest.

If you desire to make your hands delicate, wash them in hot milk and water for a day or two; on retiring to rest rub them with palm oil, and put on gloves; wash them well in the morning. Lime water, lemon-juice, or sour-milk will remove the sunburn from hands. Above all, keep the nails scrupulously clean.

Complexion, to Improve It.—Be cheerful; get as much fresh air in-doors and out-doors, as possible. Keep in health; promote a good digestion, and regular evacuations; avoid alcoholic drinks; a milk and vegetable diet makes a fair complexion; plain living, without condiments and hot seasonings, etc., makes the fairest face. It is good to rise early in the morning, drink a cup of milk, walk into the fields, wash the face in sparkling dew, gaze on creation, below, above, and all around you, till mental pleasure beams forth on your face in radiant smiles. Check the effects of grief, disappointments, embarrassments, etc.

Dissolve flour of sulphur in milk, and strain. With the clear milk wash the face. Or infuse sifted bran in best vinegar; add, well beaten, the yolks of 3 or 4 eggs, and 1 gr. of ambergris. Distill. Bottle, and cork well. Or, Castile soap, 4 ozs.; Fuller's earth water, 1 quart. Dissolve. Add ¼ oz. of spirits of wine, and 1 dr. each of oil of lavender and rosemary. Fuller's earth water is made by merely dissolving it in water, stirring well, and then let it settle. This earth alone is good for the complexion.

Cutaneous Eruptions.—The following mixture is very useful in all cutaneous eruptions: Ipecacuanha wine, 4 drs. flour of sulphur, 2 drs.; tincture of cardamums, 1 oz. Mix; 1 teaspoon to be taken three times a day, in a wineglass of water.

Wash for a Blotched Face.—Rose water, 3 ozs.; sulphate of zinc, 1 dr. Mix; wet the face with it, gently dry it, and then touch it over with cold cream, which also dry gently off.

Female Dress.—It is well known that a loose and easy dress con-

tributes much to give the sex the fine proportions of body that are observable in the Grecian statues, and which serve as models to our present artists, nature being too much disfigured among us to afford any such. The Greeks knew nothing of those Gothic shackles, that multiplicity of ligatures and bandages with which our bodies are compressed. Their women were ignorant of the use of whalebone stays, by which ours distort their shape instead of displaying it. This practice, carried to so great an excess as it is in America, must in time degenerate the species, besides being in bad taste. Can it be a pleasant sight to behold a woman cut in two in the middle, as if she were like a wasp? On the contrary, it is as shocking to the eye as it is painful to the imagination. A fine shape, like the limb, hath its due size and proportion, a diminution of which is certainly a defect. Such a deformity also would be shocking in a naked figure; wherefore, then, should it be esteemed a beauty in one that is dressed? Everything that confines and lays nature under restraint is an instance of bad taste. This is as true in regard to the ornaments of the body as to the embellishments of the mind. Life, health, reason, and convenience ought to be taken first into consideration. Gracefulness cannot subsist without ease; delicacy is not debility; nor must a woman be sick in order to please.—*Rousseau.*

Camphorated Dentifrice.—Prepared chalk, 1 lb; camphor, 1 or 2 drs. The camphor must be finely powdered by moistening it with a little spirit of wine, and then intimately mixing it with the chalk.

Myrrh Dentifrice.—Powdered cuttlefish, 1 lb.; powdered myrrh, 2 ozs.

American Tooth Powder.—Coral, cuttlefish bone, dragon's blood, of each 8 drs.; burnt alum and red sanders, of each 4 drs.; orris root, 8 drs.; cloves and cinnamon, of each ½ dr.; vanilla, 11 grs.; rosewood, ½ dr.; rose pink, 8 drs. All to be finely powdered and mixed.

Quinine Tooth Powder.—Rose pink, 2 drs.; percipitated chalk, 12 drs.; carbonate of magnesia, 1, dr.; quinine (sulphate), 6 grs. All to be well mixed together.

Depilatory—To remove superfluous Hairs.—Saturate the part well with fine oil. In about an hour, wipe it off; then take finely powdered quick lime, 1 oz.; powdered orpiment, 1 dr.; mix with white of egg; and apply with a small brush.

Tartar—To Remove From the Teeth.—Brush the teeth often up and down, not horizontally, with soap, then with salt. Eating fruit or oat-cake, cleanses the teeth greatly. In using the tooth brush the friction ought never to cause the gums to bleed.

FRECKLES.—A cutaneous affection of the countenance to which persons of florid complexion are greatly subject, especially females with auburn hair. Freckles are small yellow spots that break out over the face in the hot period of summer, and by their number give a stained and unpleasant appearance to the countenance. A still more obstinate form of freckles appears in the winter, often proceeding from a disordered state of the stomach. The best treatment for this form of eruption is to take a three-grain blue pill for two nights, and on the third morning a sedlitz powder,—using the following wash twice a day —and the application, at bedtime of a little white elder-flower ointment rubbed into the skin of the face.

Wash for the Face.—Take of sal ammoniac, powdered, 1 dr.; boiling water, 1 pt.; dissolve and strain, adding, when cold, spirits of rosemary, ½ oz.; lavender water, 2 drs. Mix, and use as directed; or a little magnesia, taken occasionally as a corrective, and a lotion for the

face, to be used twice a day, composed of 8 ozs. of elder-flower water in which 4 grs. of corrosive sublimate have been dissolved, may be substituted.

The Irish peasantry are in the habit of washing their faces with buttermilk as a cosmetic, and with great success. An excellent wash for freckles is made by scraping some horseradish very fine, and letting it stand for some hours in buttermilk, then straining, and using the wash night and morning.

Some persons prescribe citric acid, dissolved in water, of a strength sufficient to produce a slight pricking sensation. The juice of a lemon, squeezing into half a tumbler of water, is, however, a more certain means to effect the same result; or a little glycerine, mixed with elder-flower water, may be tried as a cosmetic wash. Any of these preparations, however, are useful, especially when assisted by the alteratives of magnesia, blue pill, and seidlitz powder.

To Remove Freckles.—Powdered nitre, moistened with water and applied to the face night and morning will soon remove freckles without injury to the skin.

Freckles.—To disperse them, take 1 oz. of lemon juice; ¼ dr. of powdered borax, and ¼ dr. of sugar; mix, and let them stand a few days in a glass bottle till the liquor is fit for use; then rub it on the hands and face occasionally.

To Remove Freckles.—Dissolve, in ½ oz. of lemon juice, 1 oz. of Venice soap, and add ¼ oz. each of oil of bitter almonds, and deliquated oil of tartar. Place this mixture in the sun till it acquires the consistency of ointment. When in this state add three drops of the oil of rhodium, and keep it for use. Apply it to the face and hands in the manner following: Wash the parts at night with elder-flower water.

Freckles.—Take 1 oz. of lemon-juice, ¼ dr. of powdered borax and ¼ dr. of sugar; mix, let them stand a few days in a glass bottle, then rub it on the hands and face occasionally. Or, mix two teaspoons of muriatic acid with 2 ozs. of spirits of wine; and 1½ pts. of distilled water. Or, 2 drs. of muriatic acid in 1 pt. of water, and a teaspoon of spirits of lavender. Apply with a camel hair pencil, or linen. Or, Horseradish steeped in sour milk for 12 hours, and a drop or two of tincture of myrrh. Wash two or three times per day.

A Cure for Freckles.—Scrape horseradish into a cup of cold sour milk; let it stand twelve hours, strain, and apply two or the times a day.

Another.—Mix lemon juice, 1 oz; powdered borax, ¼ dr.; sugar, ½ dr.; keep a few days in a glass bottle, then apply occasionally.

A Cure for Pimples.—Many of our young people are much troubled with an eruption upon the face. It often proves a great annoyance to them; but there is a simple remedy, which, if it does not effect a complete cure, will obviate the difficulty in a great degree, without the least injury to the health or skin.

To 1 gr. of corrosive sublimate add 1 oz. of rose water; filter, and apply twice a day.

Hands, to Whiten.—Take a wineglass of eau de Cologne, half a cup of lemon juice, scrape two cakes of Windsor soap to a powder; mix well, then add a teaspoon of sulphuric acid. Mould it, and let it harden.

COMPOUNDS TO PROMOTE THE GROWTH OF THE HAIR.—When the hair falls off, from diminished action of the scalp, preparations of cantharides often prove useful; they are sold under the names of Dupuytren's Pomade, Cazeuaze's Pomade, etc. The following directions are as good as any of the more complicated recipes:

Pomade Against Baldness.—Beef marrow, soaked in several waters, melted and strained, half a pound; tincture of cantharides (made by soaking for a week 1 dr. of powdered cantharides in 1 oz. of proof spirit), 1 oz.; oil of bergamot, 12 drops.

Erasmus Wilson's Lotion Against Baldness.—Eau de Cologne, 2 ozs.; tincture of cantharides, 2 drs.; oil of lavender or rosemary, of either 10 drops. These applications must be used one or twice a day for a considerable time; but if the scalp becomes sore they must be discontinued for a time, or used at longer intervals.

Bandoline, or Fixature.—Several preparations are used; the following are the best: 1. Mucilage of clean picked Irish moss, made by boiling ¼ oz. of the moss in 1 qt. of water until sufficiently thick, rectified spirit in the proportion of a teaspoon to each bottle to prevent its being mildewed. The quantity of spirit varies according to the time it requires to be kept. 2. Gum tragacanth, 1½ drs.; water, ½ pt.; proof spirit (made by mixing equal parts of rectified spirit and water), 8 ozs.; otto of roses, ten drops; soak for twenty-four hours and strain.

Excellent Hair Wash.—Take 1 oz. of borax, ½ oz. of camphor; powder these ingredients fine, and dissolve them in 1 qt. of boiling water; when cool, the solution will be ready for use; damp the hair frequently. This wash effectually cleanses, beautifies, and strengthens the hair, preserves the color, and prevents early bladness. The camphor will form into lumps after being dissolved, but the water will be sufficiently impregnated.

HAIR OILS—Rose Oil.—Olive oil, 1 pt; otto of roses, 5 to 16 drops; Essence of bergamot, being much cheaper, is commonly used instead of the more expensive otto of roses.

Red Rose Oil.—The same. The oil colored before scenting, by steeping in it 1 dr. of alkanet root, with a gentle heat, until the desired tint is produced.

Oil of Roses.—Olive oil, 2 pts.; otto of roses, 1 dr.; oil of rosemary, 1 dr.; mix. It may be colored red by steeping a little alkanet root in the oil (with heat) before scenting it.

POMATUMS.—For making pomatums, the lard, fat, suet, or marrow must be carefully prepared by being melted with as gentle a heat as possible, skimmed, strained, and cleared from the dregs which are deposited on standing.

Common Pomatum.—Mutton suet, prepared as above, 1 lb.; lard, 3 lbs.; carefully melted together, and stirred constantly as it cools, 2 ozs. of bergamot being added.

Hard Pomatum.—Lard and mutton suet carefully prepared, of each 1 lb.; white wax, 4 ozs.; essence of bergamot, 1 oz.

To Clean Kid Gloves.—Make a strong lather with curd soap and warm water, in which steep a small piece of new flannel. Place the glove on a flat, clean, and unyielding surface—such as the bottom of a dish, and having thoroughly soaped the flannel (when squeezed from the lather), rub the kid till all the dirt be removed, cleaning and resoaping the flannel from time to time. Care must be taken to omit no part of the glove, by turning the fingers, etc. The gloves must be dried in the sun, or before a moderate fire, and will present the appearance of old parchment. When quite dry, they must be gradually "pulled out," and will look new.

To Clean French Kid Gloves.—Put the gloves on your hand and wash them, as if you were washing your hands, in some spirits of turpentine, until quite clean; then hang them in a warm place, or where there is a current of air, and all smell of the turpentine will be remov-

ed. This method is practised in Paris, and since its introduction into this country, thousands of dollars have been gained by it.

How to Wash Kid Gloves.—Have ready a little new milk in one saucer, and a piece of brown soap in another, and a clean cloth or towel folded three or four times. On the cloth, spread out the glove smooth and neat. Take a piece of flannel, dip it in the milk, then rub off a good quantity of soap to the wetted flannel, and commence to rub the glove downwards towards the fingers, holding it firmly with the left hand. Continue this process until the glove, if white, looks of a dingy yellow, though clean; if colored, till it looks dark and spoiled. Lay it to dry; and old gloves will soon look nearly new. They will be soft, glossy, smooth, well-shaped, and elastic.

Kid Gloves, to Clean—Rub with very slightly damped bread crumbs. If not effectual, scrape upon them dry fullers earth, or French chalk, when on the hands, and rub them quickly together in all directions. Do this several times. Or put gloves of a light color on the hands, and wash the hands in a basin of spirits of hartshorn. Some gloves may be washed in a strong lather made of white soap and warm water, or milk; or wash with rice pulp. Or sponge them well with turpentine.

Why does a Head-Dress of Sky Blue become a Fair Person?—Because light blue is the complementary color of pale orange, which is the foundation of the blonde complexion and hair.

Why are Yellow, Orange, or Red Colors suitable to a Person of Dark Hair and Complexion?—Because those colors, by contrast with the dark skin and hair, show to the greater advantage themselves, while they enrich the hue of black.

Why is a Delicate Green favorable to Pale Blonde Complexions?—Because it imparts a rosiness to such complexions—red, its complementary color, being reflected upon green.

Why is Light Green unfavorable to Ruddy Complexions?—Because it increases the redness, and has the effect of producing an overheated appearance.

Why is Violet an unfavorable Color for every kind of Complexion?—Because, reflecting yellow, they augment that tint when it is present in the skin or hair, change blue into green, and give to an olive complexion a jaundiced look.

Why is Blue unsuitable to Brunettes?—Because it reflects orange, and adds to the darkness of the complexion.

Why do Blue Veils preserve the Complexion?—Because they diminish the effect of the scorching rays of light, just as the blue glass over photographic studios diminishes the effect of certain rays that would injure the delicate processes of photography.

TO REMOVE A TIGHT RING.—When a ring happens to get tightly fixed on a finger, take a piece of common twine, soap it thoroughly, and then wind it round the finger as tightly as possible. The twine should commence at the point of the finger, and be continued till the ring is reached; the end of the twine must then be forced through the ring. If the string is then unwound, the ring is almost sure to come off the finger with it.

PEARL WATER, FOR THE FACE.—Put ½ lb. of the best Windsor soap, scraped very fine, into a a gallon of boiling water. Stir it well for some time, and let it cool. Add a pint of rectified spirit of wine, and ½ oz. of oil of rosemary. Stir well. The Italians call this compound tincture of pearls. It is a good cosmetic, and will remove freckles.

PERFUME, AGAINST MOTHS.—One ounce each of cinnamon,

cloves, nutmegs, carraway seeds, mace, camphor, and 2 ozs. of orris root. Place in little bags.

Perfume for Gloves and Handkerchiefs.—Ambergris, 1 dr.; civet, 1 dr.; oil of lavender, 3 drs.; oil of bergamot, 3 drs.; camphor, ¼ oz.; spirit of wine, ½ pt. Cork and shake well for 10 days; filter, and bottle.

TO REMOVE STAINS.—If you have been picking or handling any acid fruit, and have stained your hands, wash them in clean water, wipe them lightly, and while they are yet moist, strike a match and shut your hands around it so as to catch the smoke, and the stains will disappear. If you have stained your muslin or gingham dress, or your white pants, with berries, before wetting them with anything else, pour boiling water through the stains and they will disappear. Before fruit-juice dries, it can often be removed by cold water, using a sponge and towel if necessary. Rubbing the fingers with the inside of the parings of apples will remove most of the stain caused by paring. Ink, also, if washed out or sopped up from the carpet with cold water immediately when it is spilled, can be almost entirely removed. Ink spots on floors can be extracted by scouring with sand, wetted in oil of vitriol and water. When the ink is removed, rinse with strong pearl-ash water.

SKIN, TO CLEANSE FROM DARK SPOTS OR FLESH WORMS.—The best way is to squeeze them out; or wash the skin with milk and flour of sulphur well mixed. Apply elder-flower ointment at night. An infusion of horse-radish in milk is very useful.

Skin, To Clear a Tanned.—Wash with a solution of carbonate of soda and a little lemon juice; then with fuller's earth water, or the juice of unripe grapes.

OIL, TO MAKE THE HAIR CURL.—Olive oil, 1 lb.; oil of origanum, 1 dr.; and oil of rosemary, 1¼ drs. Mix.

OFFENSIVE BREATH.—For this purpose, almost the only substance that should be admitted at the toilet is the concentrated solution of chloride of soda; from 6 to 10 drops of it in a wine-glass of pure spring water, taken immediately after the operations of the morning are completed. In some cases, the odor arising from carious teeth is combined with that of the stomach. If the mouth is well rinsed with a tea-spoon of the solution of the chloride in a tumbler of water, the bad odor of the teeth will be removed.

Breath Tainted by Onions.—Leaves of parsley, eaten with vinegar, will prevent the disagreeable consequences of eating onions

SUPERFLUOUS HAIR.—Any remedy is doubtful; many of those commonly used are dangerous. The safest plan is as follows: The hairs should be perseveringly plucked up by the roots, and the skin, having been washed twice a day with warm soft water, without soap, should be treated with the following wash, commonly called "Milk of Roses": Beat 4 ozs. of sweet almonds in a mortar, and add ½ oz. of white sugar during the process; reduce the whole to a paste by pounding; then add, in small quantities at a time, 8 ozs. of rose water. The emulsion thus formed should be strained through a fine cloth, and the residue again pounded, while the strained fluid should be bottled in a large stoppered vial. To the pasty mass in the mortar add ½ oz. of sugar, and 8 ozs. of rose water, and strain again. This process must be repeated three times. To the 32 ozs. of fluid, add 20 grs. of the bichloride of mercury, dissolved in 2 ozs. of alcohol, and shake the mixture for five minutes. The fluid should be applied with a towel, immediately after washing, and the skin gently rubbed with a dry cloth till

perfectly dry. Wilson, in his work on *Healthy Skin*, writes as follows: "Substances are sold by the perfumers called depilatories, which are represented as having the power of removing hair. But the hair is not destroyed by these means, the root and that part of the shaft implanted within the skin still remain, and are ready to shoot up with increased vigor as soon as the depilatory is withdrawn. The effect of the depilatory is the same, in this respect, as that of a razor, and the latter is, unquestionably, the better remedy. It must not, however, be imagined that depilatories are negative remedies, and that, if they do no permanent good, they are, at least, harmless; that is not the fact; they are violent irritants, and require to be used with the utmost caution. * * * * After all, the safest depilatory is a pair of tweezers, and patience."

TO CLEAN HAIR-BRUSHES.—As hot water and soap very soon soften the hair, and rubbing completes its destruction, use soda, dissolved in cold water, instead; soda having an affinity for grease, it cleans the brush with little friction. Do not set them near the fire, nor in the sun, to dry, but after shaking them well, set them on the point of the handle in a shady place.

A ROMAN LADY'S TOILET.—The toilet of a Roman lady involved an elaborate and very costly process. It commenced at night, when the face, supposed to have been tarnished by exposure, was overlaid with a poultice composed of boiled or moistened flour, spread on with the fingers. Poppæan unguents sealed the lips, and the lady was profusely rubbed with Cerona ointment. In the morning, the poultice and unguents were washed off, a bath of asses' milk imparted a delicate whiteness to the skin, and the pale face was freshened and revived with enamel. The full eyelids, which the Roman lady still knows so well how to use, now suddenly raising them to reveal a glance of surprise or of melting tenderness, now letting them droop like a veil over the lustrous eyes—the full rounded eyelids were colored within, and a needle, dipped in jetty dye, gave length to the eyebrows. The forehead was encircled by a wreath, or fillet, fastened in the luxuriant hair, which rose in front in a pyramidal pile, formed of successive ranges of curls, giving the appearance of more than ordinary height.

THE YOUNG LADY'S TOILET.—*Self-Knowledge—The Enchanted Mirror*

This curious glass will bring your faults to light,
And make your virtues shine both strong and bright.

Contentment—Wash to smooth Wrinkles.

A daily portion of this essence use,
'Twill smooth the brow, and tranquility infuse.

Truth—Fine Lip-Salve.

Use daily for your lips this precious dye,
They'll redden, and breathe sweet melody.

Prayer—Mixture, giving Sweetness to the Voice.

At morning, noon and night this mixture take,
Your tones, improved, will richer music make.

Compassion—Best Eye-Water.

These drops will add great lustre to the eye;
When more you need, the poor will you supply.

Wisdom—Solution to prevent Eruptions.

It calms the temper, beautifies the face,
And gives to woman dignity and grace.

Attention and Obedience—Matchless Pair of Ear-Rings.

With these clear drops appended to the ear,
Attentive lessons you will gladly hear.

Neatness and Industry—Indispensable Pair of Bracelets.

Clasp them on carefully each day you live,
To good designs they efficacy give.

Patience—An Elastic Girdle.

The more you use the brighter it will grow,
Though its least merit is external show.

Principle—Ring of Tried Gold.

Yield not this golden bracelet while you live,
'Twill sin restrain, and peace of conscience give.

Resignation—Necklace of Purest Pearl.

This ornament embellishes the fair,
And teaches all the ills of life to bear.

Love—Diamond Breast-Pin.

Adorn your bosom with this precious pin,
It shines without, and warms the heart within.

Politeness—A Graceful Bandeau.

The forehead neatly circled with this band,
Will admiration and respect command.

Piety—A Precious Diadem.

Whoe'er this precious diadem shall own,
Secures herself an everlasting crown.

Good Temper—Universal Beautifier.

With this choice liquid gently touch the mouth,
It spreads o'er all the face the charms of youth.

THE HANDS.—Take a wine-glass of eau-de-Cologne, and another of lemon juice; then scrape two cakes of brown Windsor soap to a powder, and mix well in a mould. When hard, it will be an excellent soap for whitening the hands.

TO WHITEN THE NAILS.—Diluted sulphuric acid, 2 drs.; tincture of myrrh, 1 dr.; spring water, 4 ozs. Mix. First cleanse with white soap, and then dip the fingers into the mixture. A delicate hand is one of the chief points of beauty; and these applications are really effective.

STAINS may be removed from the hands by washing them in a small quantity of oil of vitriol and cold water, without soap.

COLD CREAM.—1. Oil of almonds, 1 lb.; white wax, 4 ozs. Melt together gently in an earthen vessel, and when nearly cold stir in gradually 12 ozs. of rose water. 2. White wax and spermaceti, of each ½ oz.; oil of almonds, 4 ozs.; orange-flower water, 2 ozs. Mix as directed for No. 1.

TO SOFTEN THE SKIN AND IMPROVE THE COMPLEXION.—If flour of sulphur be mixed in a little milk, and after standing an hour or two, the milk (without disturbing the sulphur) be rubbed into the skin, it will keep it soft, and make the complexion clear. It is to be used before washing. A lady of our acquaintance, being exceedingly anxious about her complexion, adopted the above suggestion. In about a fortnight she wrote to us to say that the mixture became so disagreeable after it had been made a few days, that she could not use it. We should have wondered if she could—the milk became putrid! A little of the mixture should have been prepared over night with evening milk, and used the next morning, but not afterwards. About a wine-glass made for each occasion would suffice.

EYELASHES.—The mode adopted by the beauties of the East to increase the length and strength of their eyelashes, is simply to clip

the split ends with a pair of scissors about once a month. Mothers perform the operation on their children, both male and female, when they are mere infants, watching the opportunity whilst they sleep. The practice never fails to produce the desired effect. We recommend it to the attention of our fair readers, as a safe and innocent means of enhancing the charms which so many of them, no doubt, already possess.

THE TEETH.—Dissolve 2 ozs. of borax in 8 pts. of water; before quite cold, add thereto 1 tea-spoon of tincture of myrrh, and 1 table-spoon of spirits of camphor; bottle the mixture for use. One wine-glass of the solution, added to half a pint of tepid water, is sufficient for each application. This solution, applied daily, preserves and beautifies the teeth, extirpates tartarous adhesion, produces a pearl-like whiteness, arrests decay, and induces a healthy action in the gums.

WASH—For Sunburn.—Take 2 drs. of borax, 1 dr. of Roman alum, 1 dr. of camphor, ½ oz. of sugar candy, and 1 lb. of ox-gall. Mix and stir well for ten minutes or so, and repeat this stirring three or four times a day for a fortnight, till it appears clear and transparent. Strain through blotting-paper, and bottle up for use.

Wash—For Cleansing and Preventing the Hair from Falling Off.—Take three handfuls of rosemary leaves, a small lump of common soda, and 1½ drs. of camphor. Put in a jug, with a quart of boiling water, and cover closely, to keep the steam in. Let it stand for twelve hours, then strain it, and add a wine-glass of rum. This will keep good for six months, in bottles well corked, and a piece of camphor in each. If the hair falls off much, the wash ought to be applied to the roots, with a piece of sponge, every other day.

Wash—For a Blotched Face.—Rose-water, 8 ozs.; sulphate of zinc, 1 dr. Mix. Wet the face with it, gently dry it, and then touch it over with cold cream, which also dry gently off.

Wash—For the Arm-Pits after Sweating.—One quart of spring water; tincture of myrrh, 1 oz.; sulphate of zinc, ½ oz. Mix, and sponge.

WASHING, Made Easy.—One of the best bleaching and emolient agents in washing either the person or clothing, is common refined borax. Dissolve in hot water, ½ lb. to 10 gals.; a great saving in soap is effected by its use. The borax should be pulverized first. It may be procured in the form of crystals at any druggist's. It will not injure the most delicate fabrics; and laces or other fine tissues may be washed in a solution of borax with advantage to color, etc.

BAKERS' AND COOKING DEPARTMENT.

REMARKS.—It may not be considered out of place to make a few remarks here, on the art, as also on the principles, of cookery. For nearly all will acknowledge cooking not only to be an art, but a science, as well. To know how to cook economically is an art. Making money is an art. Now is there not more money made and lost in the kitchen than almost any where else? Does not many a hardworking man have his substance wasted in the kitchen? Does not many a shiftless man have his substance saved in the kitchen? A careless cook can waste as much as a man can earn, which might as well be saved. It is not what we earn, as much as what we save, that makes us well-off. A long and happy life is the reward of obedience to nature's laws; and to be independent of want, is not to want what we do not need. Prodigality and idleness constitute a crime against humanity. But frugality and industry, combined with moral virtue and intelligence, will insure individul happiness and national prosperity. Economy is an institute of nature and enforced by Bible precept: "Gather up the fragments, that nothing be lost." Saving is a more difficult art than earning, some people put dimes into their pies and puddings, where others put in cents; the cent dishes are the most healthy.

Almost any woman can cook well, if she have *plenty* with which to do it; but the real *science* of cooking is to be able to cook a good meal, or dish, with but *little* out of which to make it. This is what our few recipes shall assist you in doing.

As to the principles of cooking, remember that water cannot be made more than boiling hot—no matter how much you hasten the fire. you cannot hasten the cooking, of meat, potatoes, etc., one moment; a brisk boil is sufficient. When meat is to be boiled for eating, put it into boiling water at the beginning, by which its juices are preserved. But if you wish to extract these juices for soup or broth, cut the meat in small pieces, into cold water, and let it simmer slowly.

The same principle holds good in baking, also. Make the oven the right heat, and give it *time* to bake through, is the true plan; if you attempt to hurry it, you only *burn*, instead of cooking it *done*.

If you attempt the boiling to hurry,
The wood only is wasted;
But, in attempting the baking to hurry,
The food, as well, is'nt fit to be tasted.

CAKES—Federal Cake.—Flour 2½ lbs.; pulverized white sugar, 1¼ lbs.; fresh butter, 10 ozs.; 5 eggs, well beaten; carbonate of ammonia, ⅛ oz.; water, ½ pt., or milk is best if you have it.

Grind down the ammonia, and rub it with the sugar. Rub the butter into the flour; now make a bowl of the flour, (unless you wish to work it up in a dish,) and put in the eggs, milk, sugar, etc., and mix well, and roll out to about a quarter of an inch in thickness; then cut out with a round cutter, and place on tins so they touch each other;

and instead of rising up thicker, in baking, they fill up the space between, and make a square-looking cake, all attached together. While they are yet warm, drench over with white coarsely pulverized sugar. If they are to be kept in a show-case, by bakers, you can have a board as large as the tin on which you bake them, and lay a dozen or more tinsful on top of each other, as you sprinkle on the sugar. I cannot see why they are called "Federal," for really, they are good enough for any "Whig."

Ammonia should be kept in a wide-mouthed bottle, tightly corked, as it is a very volatile salt. It is known by various names, as "volatile salts," "sal volatile," "hartshorn" "hartshorn-shavings, etc., etc. It is used for smelling-bottles, fainting, as also in baking.

2. Rough-and-Ready Cake.—Butter or lard, 1 lb.; molasses, 1 qt.; soda, 1 oz.; milk or water, ½ pt.; ground ginger, 1 table-spoon; and a little oil of lemon; flour sufficient.

Mix up the ginger in flour, and rub the butter or lard in, also dissolve the soda in the milk or water; put in the molasses, and use the flour in which the ginger and butter is rubbed up, and sufficient more to make the dough of a proper consistence to roll out; cut the cakes out with a long and narrow cutter, and wet the top with a little molasses and water, to remove the flour from the cake; turn the top down into pulverized white sugar, and place in an oven sufficiently hot for bread, but keep them in only to bake, not to dry up. This, and the "Federal," are great favorites in Pennsylvania, where they know what is good, and have the means to make it; yet they are not expensive.

3. Sponge Cake, with Sour Milk.—Flour, 3 cups; fine white sugar, 2 cups; 6 eggs; sour milk, ½ cup, with saleratus, 1 tea-spoon.

Dissolve the saleratus in the milk; beat the eggs separately; sift the flour and sugar; first put the sugar into the milk and eggs, then the flour, and stir all well together, using any flavoring extract which you prefer, 1 tea-spoon—lemon, however, is the most common. As soon as the flour is stirred in, put it immediately into a quick oven; and if it is all put into a common square bread-pan, for which it makes the right amount, it will require about twenty to thirty minutes to bake; if baked in small cakes, proportionately less.

4. Sponge Cake, with Sweet Milk.—As sour milk cannot always be had, I give you a sponge cake with sweet milk:

Nice brown sugar, 1½ cups; 3 eggs; sweet milk, 1 cup; flour, 3½ cups; cream-of-tartar and soda, of each 1 tea-spoon; lemon essence, 1 tea-spoon.

Thoroughly beat the sugar and eggs together; mix the cream-of-tartar and soda in the milk, stirring in the flavor also; then mix in the flour, remembering that all cakes ought to be baked soon after making. This is a very nice cake, notwithstanding what is said of "Berwick," below.

5. Berwick Sponge Cake, without Milk.—Six eggs; powdered white sugar, 3 cups; sifted flour, 4 even cups; cream-of-tartar, 2 tea-spoons; cold water, 1 cup; soda, 1 tea-spoon; one lemon.

First, beat the eggs two minutes, and put in the sugar and beat five minutes more; then stir in the cream-of-tartar and two cups of the flour, and beat one minute; now dissolve the soda in the water and stir in, having grated the rind of the lemon, squeeze in half of the juice only; and finally add the other two cups of flour, and beat all one minute, and put into deep pans in a moderate oven. There is considerable beating about this cake, but if *itself* does not beat all the sponge cakes you ever beat, we will acknowledge it to be the *beating* cake, all around.

6. Surprise Cake.—One egg; sugar, 1 cup; butter, ½ cup. sweet milk, 1 cup; soda, 1 tea-spoon; cream-of-tartar, 2 tea-spoons.

Flavor with lemon, and use sufficient sifted flour to make the proper consistence, and you will really be surprised to see its bulk and beauty.

7. Sugar Cake.—Take 7 eggs, and beat the whites and yolks separately; then beat well together; now put into them sifted white sugar, 1 lb.; with melted butter, ½ lb., and a small tea-spoon of pulverized carbonate of ammonia,

Stir in just sufficient sifted flour to allow of its being rolled out and cut into cakes.

8. Ginger Cake.—Molasses, 2 cups; butter, or one-half lard if you choose, 1½ cups; sour milk, 2 cups; ground ginger, 1 tea-spoon; saleratus, 1 heaping tea-spoon.

Mash the saleratus, then mix all these ingredients together in a suitable pan, and stir in flour as long as you can with a spoon; then take the hand and work in more, just so you can roll them by using flour dusting pretty freely; roll out thin, cut and lay upon your buttered or floured tins; then mix one spoon of molasses and two of water, and with a small brush or bit of cloth wet over the top of the cakes; this removes the dry flour, causes the cakes to take a nice brown, and keeps them moist; put into a quick oven, and ten minutes will bake them if the oven is sufficiently hot. Do not dry them all up, but take out as soon as nicely browned.

We have sold cakes out of the grocery for years, but never found any to give as good satisfaction as these, either at table or counter. They keep moist and are sufficiently rich and light for all cake eaters.

9. Tea or Cup Cake.—Four eggs; nice brown sugar, 2 cups; saleratus, 1 tea-spoon; sour milk, 3 cups; melted butter, or half lard, 1 cup; half a grated nutmeg; flour.

Put the eggs and sugar into a suitable pan, and beat together; dissolve the saleratus in the milk, and add to the eggs and sugar; put in the butter and nutmeg also; stir all well; then sift in flour sufficient to make the mass to such a consistence that it will not run from a spoon when lifted upon it. Any one preferring lemon can use that in place of nutmeg. Bake rather slowly.

10. Cake, Nice, without Eggs or Milk.—A very nice cake is made as follows, and it will keep well also:

Flour, 3½ lbs.; sugar, 1¼ lbs.; butter, 1 lb.; water, ½ pt. having 1 tea-spoon of saleratus dissolved in it.

Roll thin, and bake on tin sheets.

11. Molasses Cake.—Molasses, 1½ cups; saleratus, 1 tea-spoon, sour milk, 2 cups; 2 eggs; butter, lard, or pork gravy, what you would take up on a spoon; if you use lard, add a little salt.

Mix all by beating a minute or two with a spoon, dissolving the saleratus in the milk; then stir in flour to give the consistence of soft cake, and put directly into a hot oven, being careful not to dry them up by over-baking, as it is a soft, moist cake that we are after.

12. Cider Cake.—Flour, 6 cups; sugar, 3 cups; butter, 1 cup; 4 eggs; cider, 1 cup; saleratus, 1 tea-spoon; 1 grated nutmeg.

Beat the eggs, sugar, and butter together, and stir in the flour and nutmeg, dissolve the saleratus in the cider and stir into the mass and bake immediately in a quick oven.

13. Ginger Snaps.—Butter, lard, and brown sugar, of each ¼ lb.; molasses, 1 pt.; ginger, 2 table-spoons; flour, 1 qt.; saleratus, 2 tea-spoons; sour milk, 1 cup.

Melt the butter and lard, and whip in the sugar, molasses, and ginger; dissolve the saleratus in the milk, and put in; then the flour, and, if needed, a little more flour, to enable you to roll out very thin; cut into small cakes and bake in a slow oven until *snappish*.

14. Jelly Cake.—Five eggs; sugar, 1 cup; a little nutmeg; saleratus, 1 tea-spoon; sour milk, 2 cups; flour.

Beat the eggs, sugar, and nutmeg together; dissolve the saleratus in the milk, and mix; then stir in flour to make only a thin batter, like pan-cakes; three or four spoons of the batter to a common round tin; bake in a quick oven. Three or four of these thin cakes, with jelly between, form one cake, the jelly being spread on while the cake is warm.

15. Roll, Jelly Cake.—Nice brown sugar, 1⅓ cups; 3 eggs; sweet skim milk, 1 cup; flour, 2 cups, or a *little* more only; cream-of-tartar and soda, of each 1 tea-spoon; lemon essence, 1 tea-spoon.

Thoroughly beat the eggs and sugar together; mix the cream-of-tartar and soda with the milk, stirring in the flavor also; now mix in the flour, remembering to bake soon, spreading thin upon a long pan; and as soon as done spread jelly upon the top and roll up; slicing off only as used; the jelly does not come in contact with the fingers, as in the last, or flat cakes.

CAKE TABLE—FIFTEEN KINDS.

No.	Name of Cake.	Flour.	Butter.	Sugar.	Milk.	Eggs.	Directions.
16.	Pound	1 lb.	1 lb.	1 lb.	.....	8	Rose-water, three spoons; mace, etc
17.	Genuine Whig	2 "	8 ozs	8 ozs	1 pt.	....	Raise with yeast.
18.	Shrewsbury	1 "	1 lb.	¾ lb.	.....	....	Rose-water, etc.
19.	Training	3 "	¾ "	¾ "	.....	....	Cinnamon, nutmeg
20.	Nut-Cake	7 "	¼ "	2 "	.....	7	Cinnamon; wet it with milk; raise with yeast, or wet and raise it with sour milk and saleratus.
21.	Short-Cake	5 "	8 ozs	¾ "	.....	8	Rose-water and nutmeg.
22.	Cymbals	2 "	8 "	½ "	.....	6	Rose-water and a little spice.
23.	Burk Cake	5 "	8 "	¾ "	1 pt.	9	Rose water; raise with yeast.
24.	Jumbles	5 "	1 lb.	2 "	.....	6	Roll out in loaf sugar.
25.	Ginger-Bread	1 "	½ "	½ "	.....	8	Yolks only; ginger to suit.
26.	Wonders	2 "	¼ "	¼ "		10	Cinnamon.
27.	Cookies	3 "	¾ "	¾ "	....	3	Or without eggs; wet up; raise it with sal'ratus and sour milk.
28.	York Biscuit	3 "	½ "	¾ "	.....	....	Wet up, and raise with sour milk and saleratus.
29.	Common	12 "	3 "	3 "	2 qts.	....	Yeast; spice it to taste.
30.	Loaf	9 qts	3 "	4 "	1 gal.	....	Wine, 1 pt.; yeast, 1 pt.

31. Pork Cake, without Butter, Milk, or Eggs.—A most delightful cake is made by the use of pork, which saves the expense of

butter, eggs, and milk. It must be tasted to be appreciated; and another advantage of it is that you can make enough, some leisure day, to last the season through; for I have eaten it two months after it was baked still nice and moist.

Fat, salt pork, entirely free of lean or rind, chopped so fine as to be almost like lard, 1 lb.; pour boiling water upon it, ½ pt.; raisins, seeded and chopped, 1 lb.; citron, shaved into shreds, ¼ lb.; sugar, 2 cups; molasses, 1 cup; saleratus, 1 tea-spoon, rubbed fine and put into the molasses. Mix these all together, and stir in sifted flour to make the consistence of common cake mixtures; then stir in nutmeg and cloves finely ground, 1 oz. each; cinnamon, also fine, 2 ozs.; be governed about the time of baking it by putting a sliver into it,—when nothing adheres, it is done. It should be baked slowly.

You can substitute other fruit in place of the raisins, if desired, using as much or as little as you please, or none at all, and still have a nice cake. In this respect you may call it the accommodation cake, as it accommodates itself to the wishes or circumstances of its lovers.

When *pork* will do all we here claim for it, who will longer contend that it is not fit to eat? Who?

32. Marbled Cake.—Those having any curiosity to gratify upon their own part, or on the part of friends, will be highly pleased with the contrast seen when they take a piece of a cake made in two parts dark and light, as follows:

LIGHT PART.—White sugar, 1½ cups; butter, ½ cup; sweet milk, ½ cup; soda, ½ tea-spoon; cream-of-tartar, 1 tea-spoon; whites of 4 eggs; flour, 2½ cups; beat and mixed as "Gold Cake."

DARK PART.—Brown sugar, 1 cup; molasses, ½ cup; butter, ½ cup; sour milk, ½ cup; soda, ½ tea-spoon; cream-of-tartar, 1 tea-spoon; flour, 2½ cups; yolks of 4 eggs; cloves, allspice, cinnamon, and nutmeg, ground, of each ½ table-spoon; beat and mixed as "Gold Cake."

DIRECTIONS.—When each part is ready, drop a spoon of dark, then a spoon of light, over the bottom of the dish in which it is to be baked and so proceed to fill up the pan, dropping the light upon the dark as you continue with the different layers.

33. Silver Cake.—Whites of 1 doz. eggs; flour, 5 cups; white sugar and butter, of each 1 cup; cream or sweet milk, 1 cup; cream-of tartar, 1 tea-spoon; soda, ½ tea-spoon; beat and mix as the "Gold Cake." Bake in a deep pan.

34. Gold Cake.—Yolks of 1 doz. eggs; flour, 5 cups; white sugar, 3 cups; butter, 1 cup; cream or sweet milk, 1½ cups; soda, ½ tea-spoon; cream-of-tartar, 1 tea-spoon. Bake in a deep loaf pan.

Beat the eggs with the sugar, having the butter softened by the fire; then stir it in; put the soda and cream-of-tartar into the cream or milk, stirring up and mixing all together; then sift and stir in the flour.

The gold and silver cakes, dropped as directed in the "Marble Cake," give you still another variety.

35. Bride Cake.—Presuming that this work may fall into the hands of some persons who may occasionally have a wedding amongst them, it would be imperfect without a "wedding cake," and as I have lately had an opportunity to test this one, upon "such an occasion," in my own family, I can bear testimony—so can the "printer,"—to its adaptation for all similar displays.

Take butter, 1½ lbs.; sugar, 1¾ lbs., half of which is to be Orleans sugar; eggs, well beaten, 2 lbs.; raisins 4 lbs., having the seeds

taken out, and chopped; English currants, having the grit picked out, and nicely washed, 5 lbs.; citron, cut fine, 2 lbs.; sifted flour, 2 lbs.; nutmegs, 2 in number, and mace, as much in bulk; alcohol, 1 gill to ½ pt., in which a dozen or 15 drops of oil of lemon have been put.

When ready to make your cake, weigh your butter and cut it in pieces, and put it where it will soften, but not melt. Next, stir the butter to a cream, and then add the sugar, and work till white. Next beat the yolks of the eggs, and put them to the sugar and butter. Meanwhile another person should beat the whites to a stiff froth, and put them in. Then add the spices and flour, and, last of all, the fruit, except the citron, which is to be put in about three layers, the bottom layer about one inch from the bottom, and the top one an inch from the top, and the other in the middle, smoothing the top of the cake by dipping a spoon or two of water upon it for that purpose.

The pan in which it is baked should be about thirteen inches across the top, and five and a half or six inches deep, without scollops, and two three-quart pans also, which it will fill; and they will require to be slowly baked about three to four hours. But it is impossible to give definite rules as to the time required in baking cake. Try whether the cake is done, by piercing it with a broom splinter, and if nothing adheres, it is done.

Butter the cake-pans well; or if the pans are lined with buttered white paper, the cake will be less liable to burn. Moving cakes while baking tends to make them heavy.

The price of a large "Bride Cake," like this, would be about twelve dollars, and the cost of making it would be about three dollars only, with your two small ones, which would cost as much to buy them as it does to make the whole three.

The foregoing was written and printed over a year ago. The daughter came home, and took dinner with us, one year from the marriage; and her mother set on some of the cake, as nice and moist as when baked.

36. Fruit Cake.—As side accompaniments to the "Bride Cake." you will require several "Fruit Cakes," which are to be made as follows:

Butter, sugar, English currants, eggs, and flour, of each, 5 lbs. Mix as in the "Bride Cake."

Bake in about six cakes, which would cost from one dollar and fifty cents to two dollars a-piece, if bought for the occasion.

37. Frosting, or Icing, for Cakes.—The whites of 8 eggs, beat to a perfect froth and stiff; pulverized white sugar, 2 lbs.; starch, 1 table-spoon; pulverized gum arabic, ½ oz.; the juice of 1 lemon.

Sift the sugar, starch, and gum arabic into the beaten egg, and stir well and long. When the cake is cold lay on a coat of the frosting. It is best not to take much pains in putting on the first coat, as little bits of the cake will mix up with it, and give the frosting a yellow appearance; but on the next day, make more frosting the same as the first, and apply a second coat, and it will be white, clear, and beautiful. And by dipping the knife into cold water as applying, you can smooth the frosting very nicely.

38. Excellent Crackers.—Butter, 1 cup; salt, 1 tea-spoon; flour, 2 qts.

Rub thoroughly together with the hand, and wet up with cold water; beat well, and beat in flour to make quite brittle and hard; then pinch off pieces and roll out each cracker by itself, if you wish them to resemble bakers' crackers.

39. Sugar Crackers.—Flour, 4 lbs.; loaf sugar and butter, of each, ½ lb.: water, 1½ pts. Make as above.

40. Naples Biscuit.—White sugar, eggs, and flour, of each 1 lb. If properly pulverized, sifted, beat, mixed, and baked the size of Boston crackers, you will say it is nice indeed.

41. Buckwheat Short-Cake.—Take 3 or 4 tea-cups of nice sour milk, 1 tea-spoon of soda-saleratus dissolved in the milk; if the milk is very sour, you must use saleratus in proportion, with a little salt; mix up a dough with buckwheat flour, *thicker* than you would mix the same for griddle-cakes, say quite stiff; put into a buttered tin, and put directly into the stove oven and bake about 30 minutes, or as you would a short-cake from common flour.

It takes the place of the griddle-cake, also of the short-cake, in every sense of the word—nice with meat, butter, honey, molasses, etc. No shortening is used, and no need of setting your dish of batter over night, for a drunken husband to set his foot in. Wet the top a little, and warm it up at next meal, if any is left—it is just as good as when first made, while griddle-cakes have to be thrown away. It is also very good cold.

Was the beauty of this cake known to the majority of persons throughout the country generally, buckwheat would become as staple an article of commerce as the common wheat. Do not fail to give it a trial. Some persons, in trying it, have not had good luck the first time; they have failed from the milk's being too sour for the amount of saleratus used, or from making the dough too thin. I think I can say we have made it *hundreds* of times with success, as I could eat it while dyspeptic, when I could eat no other warm bread.

42. Yeast Cake.—Good lively yeast, 1 pt.; rye or wheat flour, to form a thick batter; salt, 1 tea-spoon; stir in, and set to rise; when risen, stir in Indian meal, until it will roll out good.

When again risen, roll out very thin; cut them into cakes, and dry in the shade; if the weather is the least damp, by the fire or stove. If dried in the sun, they will ferment.

To use: Dissolve one in a little warm water, and stir in a couple of table-spoons of flour; set near the fire, and when light, mix into the bread. If made perfectly dry, they will keep for six months.

BREADS—Yankee Brown Bread.—For each good-sized loaf being made, take 1½ pts. corn meal, and pour boiling water upon it, to scald it properly; let stand until only blood warm; then put about 1 qt. of rye flour upon the meal, and pour in a good bowl of emptyings, with a little saleratus dissolved in a gill of water, kneading in more flour, to make of the consistence of common bread. If you raise it with yeast, put a little salt in the meal, but if you raise it with salt-risings, or emptyings, which I prefer, no more salt is needed.

Form into loaves, and let them set an hour and a half, or until light—in a cool place, in summer, and on the hearth, or under the stove, in winter; then bake about two hours. Make the dough fully as stiff as for wheat bread, or a little harder; for if made too soft, it does not rise good. The old style was to use only one-third rye flour, but it does not wear if made that way; or, in other words, most persons get tired of it when mostly corn meal, but I never do when mostly rye flour.

Let all persons bear in mind that bread should never be eaten the day on which it is baked, and *positively* must this be observed by *dyspeptics*. Hotels never ought to be without this bread, nor families who care for health.

2. Graham Bread.—I find in *Zion's Herald*, of Boston, edited by Rev. E. O. Haven, formerly a Professor in the University at this city, a few remarks upon the "Different Kinds of Bread," including Graham, which so fully explain the *philosophy* and true principles of bread-making, that I give them an insertion, for the benefit of bread-makers. It says:

"Rice flour added to wheat flour, enables it to take up an increased quantity of water." [See the "New French Method of Making Bread."] "Boiled and mashed potatoes mixed with the dough, cause the bread to retain moisture, and prevent it from drying and crumbling. Rye makes a dark-colored bread; but it is capable of being fermented and raised in the same manner as wheat. It retains its freshness and moisture longer than wheat. An admixture of rye flour with that of wheat, decidedly improves the latter in this respect. Indian corn bread is much used in this country. Mixed with wheat and rye, a dough is produced capable of fermentation, but pure maize meal cannot be fermented so as to form a light bread. Its gluten lacks the tenacious quality necessary to produce the regular cell-structure. It is most commonly used in the form of cakes, made to a certain degree light by eggs or sour milk, and saleratus, and is generally eaten warm. Indian corn is ground into meal of various degrees of coarseness, but is never made so fine as wheaten flour. Bread or cakes from maize require a considerably longer time to be acted upon by heat in the baking process, than wheat or rye. If ground wheat be unbolted, that is, if its bran be not separated, wheat meal or Graham flour results, from which Graham or dyspepsia bread is produced. It is made in the same general way as other wheaten bread, but requires a little peculiar management. Upon this point, Mr. Graham remarks:

'The wheat meal, and especially if it is ground coarsely, swells considerably in the dough, and therefore the dough should not at first be made quite so stiff as that made of superfine flour; and when it is raised, if it is found too soft to mould well, a little more meal may be added. It should be remarked that dough made of wheat meal will take on the acetous fermentation, or become sour sooner than that made of fine flour. It requires a hotter oven, and to be baked longer, but must not stand so long after being mixed, before baking, as that made from flour.' "

3. Brown Bread Biscuit.—Take corn meal, 2 qts.; rye flour, 3 pts.; wheat flour, 1 pt.; molasses, 1 table-spoon; yeast, 3 table-spoons, having soda, 1 tea-spoon, mixed with it.

Knead over night, for breakfast. If persons will eat warm bread, this, or buckwheat short-cake, should be the only kinds eaten.

4. Dyspeptics' Biscuit and Coffee.—Take Graham flour (wheat coarsely ground, without bolting,) 2 qts.; corn meal, sifted, 1 qt.; butter, ½ cup; molasses, 1 cup; sour milk, to wet it up, with saleratus, as for biscuit.

Roll out and cut with a tea-cup, and bake as other biscuit; and when cold they are just the thing for dyspeptics. And if the flour was sifted, none would refuse to eat them.

For the Coffee.—Continue the baking of the above biscuit in a slow oven for six or seven hours, or until they are browned through like coffee.

DIRECTIONS.—One buiscuit boiled ¾ of an hour will be plenty for 2 or 3 cups of coffee, and 2, for 6 persons. Serve with cream and sugar, as other coffee.

Dyspeptics should chew very fine, and slowly, not drinking until

the meal is over; then sip the coffee at their leisure, not more than one cup, however. This will be found very nice for common use, say with one-eighth coffee added. Hardly any would distinguish the difference between it and that made from coffee alone. The plan of buying ground coffee is bad. Much of it is undoubtedly mixed with peas, which you can raise for less than fifteen or twenty cents a pound, and mix for yourself.

5. London Baker's Superior Loaf Bread.—The *Michigan Farmer* gives us the following—any one can see that it contains sound sense:

"To make a half-peck loaf, take ¾ lb. of well boiled mealy potatoes, mash them through a fine colander or coarse sieve; add ½ pt. of yeast, or ¾ oz. of German dried-yeast, and 1¾ pts. of lukewarm water, (88 deg. Fahr.,) together with ¾ lb. of flour, to render the mixture the consistence of thin batter. This mixture is to be set aside to ferment. If set in a warm place it will rise in less than 2 hours, when it resembles yeast, except in color. The sponge so made is then to be mixed with 1 pt. of water, nearly blood warm—viz., 92 deg. Fahr.,—and poured into a half-peck of flour, which has previously had 1¼ ozs. of salt mixed into it. The whole should then be kneaded into dough, and allowed to rise in a warm place for 2 hours, when it should be kneaded into loaves and baked."

The object of adding the mashed potatoes is to increase the amount of fermentation in the sponge, which it does to a very remarkable degree, and consequently renders the bread lighter and better. The potatoes will also keep the bread moist.

6. Old Bachelor's Bread, Biscuit, or Pie-Crust.—Flour, 1 qt.; cream-of-tartar, 2 tea-spoons; soda, ¾ tea-spoon; sweet milk, to wet up the flour to the consistence of biscuit dough.

Rub the flour and cream-of-tartar well together; dissolve the soda in the milk, wetting up the flour with it, and bake *immediately*. If you have no milk, use water in its place, adding a spoon of lard to obtain the same richness. It does well for pie-crust, where you cannot keep up sour milk.

7. New French Method of Making Bread.—Take rice, ¾ lb.; tie it up in a thick linen bag, giving ample room to swell; boil it from 3 to 4 hours, or until it becomes a perfect paste; mix this while warm with 7 lbs. of flour, adding the usual quantities of yeast and salt; allow the dough to work a proper time near the fire, then divide into loaves. Dust them in, and knead vigorously.

This quantity of flour and rice makes about thirteen and one-half pounds of bread, which will keep moist much longer than without the rice. It was tested in the London Polytechnic Institute, after having been made public in France, with the above results.

8. Baking Powders, for Biscuit, without Shortening.—Bi-carbonate of soda, 4 ozs.; cream-of-tartar, 8 ozs.; and properly dry them, and thoroughly mix. It should be kept in well-corked bottles, to prevent dampness, which neutralizes the acid.

Use about three tea-spoons to each quart of flour being baked; mix with milk, if you have it—if not, wet up with cold water, and put *directly* into the oven to bake.

PIES.—Lemon Pie, Extra Nice.—One lemon; water, 1 cup; brown sugar, 1 cup; flour, 2 table-spoons; 5 eggs; white sugar, 2 table-spoons.

Grate the rind from the lemon, squeeze out the juice, and chop up the balance very fine; put all together and add the water, brown

sugar, and flour, working the mass into a smooth paste; beat the eggs and mix with the paste, saving the whites of two of them; make two pies, baking with no top crust. While these are baking, beat the whites of the two eggs, saved for that purpose, to a stiff froth, and stir in the white sugar. When the pies are done, spread this frosting evenly over them, and set again in the oven and brown slightly.

2. Pie-Crust Glaze.—In making any pie which has a juicy mixture, the juice soaks into the crust, making it soggy and unfit to eat. To prevent this:

Beat an egg well, and with a brush, or bit of cloth, wet the crust of the pie with the beaten egg, just before you put in the pie mixture.

For pies which have a top crust also, wet the top with the same before baking, which gives it a beautiful yellow brown. It gives beauty also to biscuit, ginger cakes, and is just the thing for rusk, by putting in a little sugar.

3. Apple Pie which is Digestible.—Instead of mixing up your crust with water and lard, or butter, making it very rich, with shortening, as customary for apple pies:

Mix it up every way just as you would for biscuit, using sour milk and saleratus, with a *little* lard or butter only; mix the dough quite stiff, roll out rather thin, lay it upon your tin, or plate; and having ripe apples sliced or chopped nicely and laid on, rather thick, and sugar according to the acidity of the apples, then a top crust, and bake well, putting the egg upon the crusts, as mentioned in the "Pie-Crust Glaze," and you have got a pie that is fit to eat.

But when you make the rich crust, and cook the apples and put them on, it soaks the crust, which does not bake, and no stomach can digest it, whilst our way gives you a nice light crust, and does not take half the shortening of the other plan. Yet perhaps nothing is saved pecuniarily, as butter goes as finely with the biscuit-crust pies, when hot, as it does with biscuit; but the pie is digestible, and when it is cold does not taste bad to cut it up on your plate, with plenty of sweetened cream.

4. Apple Custard Pie—The Nicest Pie ever Eaten.—Peel sour apples and stew until soft and not much water left in them; then rub them through a colander—beat 3 eggs for each pie to be baked; and put in at the rate of 1 cup of butter and 1 of sugar for 3 pies; season with nutmeg.

My wife has more recently made them with only 1 egg to each pie, with only half of a cup of butter and sugar each, to 4 or 5 pies; but the amount of sugar must be governed somewhat by the acidity of the apples.

Bake as pumpkin pies, which they resemble in appearance; and between them and apple pies in taste; very nice indeed. We find them equally nice with dried apples, by making them a little more juicy.

If a frosting was put upon them, as in the "Lemon Pie," then returned, for a few moments, to the oven, the appearance, at least, would be improved.

5. Apple Custard, Very Nice.—Take tart apples, that are quite juicy, and stew and rub them, as in the recipe above, and to 1 pt. of the apple, beat 4 eggs and put in, with 1 table-spoon of sugar, 1 of butter, and ½ of a grated nutmeg.

Bake as other custards. It is excellent, and makes a good substitute for butter, apple butter, etc.

6. Paste for Tarts.—Loaf sugar, flour, and butter, equal weights

of each; mix thoroughly by beating with a rolling-pin, for half an hour; folding up and beating again and again.

When properly mixed, pinch off small pieces and roll out each crust by itself, which causes them to dish so as to hold the tart mixture. And if you will have a short pie-crust, this is the plan to make it.

PUDDING—Biscuit Pudding, Without Re-Baking.—Take water-1 qt.; sugar, ¼ lb.; butter, the size of a hen's egg; flour, 4 table, spoons; nutmeg, grated, ½ of one.

Mix the flour with just sufficient cold water to rub up all the lumps while the balance of the water is heating, mix all and split the biscuit once or twice, and put into this gravy while it is hot, and keep hot until used at table. It uses up cold biscuit, and I prefer it to richer puddings. It is indeed worth a trial. This makes a nice dip gravy also for other puddings.

2. Old English Christmas Plumb Puddings.—The Harrisburg *Telegraph* furnishes its readers with a recipe for the real "Old English Christmas Plumb Pudding." After having given this pudding a fair test, I am willing to endorse every word of it; and wish for the holiday to come oftener than once a year:

"To make what is called a pound pudding; take of raisins well stoned but not chopped, currants thoroughly washed, 1 lb. each; chop suet, 1 lb., very finely, and mix with them; add ¼ lb. of flour or bread very finely crumbled; 8 ozs. of suger; 1½ ozs. of grated lemon peel, a blade of mace, ½ of a small nutmeg, 1 tea-spoon of ginger; ½ doz. of eggs, well beaten; work it well together, put it in a cloth, tie it firmly, allowing room to swell; put it into boiling water, and boil not less than two hours. It should not be suffered to stop boiling.

The cloth, when about to be used, should be dipped into boiling water, squeezed dry, and floured; and when the pudding is done, have a pan of cold water ready, and dip it in for a moment, as soon as it comes out of the pot, which prevents the pudding from sticking to the cloth. For a dip gravy for this or other puddings, see the "Biscuit Pudding without Re-Baking," or "Spreading Sauce for Pudding."

3. Indian Pudding, To Bake.—Nice sweet milk. 1 qt.; butter, 1 oz.; 4 eggs, well beaten; Indian meal, 1 tea-cup; raisins, ½ lb.; sugar. ¼ lb.

Scald the milk, and stir in the meal whilst boiling; then let it stand until only blood-warm, and stir all well together, and bake about one and a half hours. Eaten with sweetened cream, or either of the pudding sauces mentioned in the "Christmas Pudding."

4. Indian Pudding, to Boil.—Indian meal, 1 qt., with little salt; 6 eggs; sour milk, 1 cup; saleratus, 1 tea-spoon; raisins, 1 lb.

Scald the meal, having the salt in it; when cool stir in the beaten eggs; dissolve the saleratus in the milk and stir in also, then the raisins; English currants, dried currants, or dried berries, of any kind, answer every purpose, and are, in fact, very nice in place of the raisins. Boil about one and a half hours. Eaten with sweetened cream or any of the pudding sauces. Any pudding to be boiled must not be put into the water until it boils, and taken out as soon as done, or they become soggy and unfit to eat.

5. Quick Indian Pudding.—Take 1½ cups of sour milk; 2 eggs, well beaten; 1 small tea-spoon of saleratus; dissolved in the milk; then sift in dry corn meal, and stir to the consistence of corn bread; then stir in ½ lb. of any of the fruits mentioned above: or, if you have no fruit, it is quite nice without.

Tie up and boil one hour; sweetened cream with a little nutmeg makes a nice sauce. As I have just eaten of this for my dinner, I throw it in extra, for it is worthy.

6. Flour Pudding, to Boil.—When persons have plenty of dried apples or peaches, and not much of the smaller fruits; or desire to change from them in puddings:

Take wheat flour sufficient to make a good pan of biscuit, and mix it up as for biscuit, with sour milk, saleratus, and a little butter or lard, roll out rather thicker than for pie-crust; now having your apples or peaches nicely stewed wet the crust over with the "Pie Crust Glaze," then spread a layer of the fruit upon it, adding a little sugar, as it lies upon the table; and if you choose, scatter over them a handful of raisins, or any other of the dried fruits mentioned; roll up the whole together, and boil 1 hour.

Eaten with any sauce which you may prefer, but the corn meal puddings are much the most healthy, and I prefer their taste to those made from flour.

7. Potato Pudding.—Rub through a colander 6 large or 12 middle-sized potatoes; beat 4 eggs, mix with 1 pt. of good milk; stir in the potatoes, sugar and seasoning to taste; butter the dish; bake ½ an hour.

This recipe is simple and economical, as it is made of what is wasted in many families, namely, cold potatoes; which may be kept up two or three days, until a sufficient quantity is collected. To be eaten with butter.

8. Green Corn Pudding.—Green corn, raw, 2 doz. ears; sweet milk, 3 to 4 qts.; 6 eggs; sugar, 1 to 2 cups. Salt to suit the taste.

Split the kernels lengthwise of the ear with a sharp knife; then with a case knife scrape the corn from the cob, which leaves the hulls on the cob; mix it with the milk and other articles, and bake from two to three hours. To be eaten with butter and sugar.

9. Steamed Pudding.—Two eggs; sugar, 1 cup; sour milk, 1 cup; saleratus, ½ tea-spoon; a little salt; dried whortleberries, currants, raisins, or other fruit, 1 cup; flour.

Beat the eggs and stir in the sugar; dissolve the saleratus in the milk, and mix in also the fruit and salt; then thicken with flour, rather thicker than for cake; put into a two-quart pan and set in a steamer and steam an hour and a half; and I think it will crack open on the back—if not, try again. It is worth the trouble, especially if you have plenty of sweetened cream.

10. Spreading Sauce for Puddings.—Butter, 4 ozs.; sugar, 6 ozs.; 1 nutmeg.

Grate the nutmeg, and rub all together; these are about the proper proportions, but more or less can be made, as desired, and more or less nutmeg can be used; or any other flavoring in their place. This sauce is nice on baked puddings, hot or cold; and to tell it all it is not bad on bread. See the "Biscuit Pudding," for dip-sauces.

DOMESTIC DISHES—Green Corn Omelet.—Green corn, boiled, 1 doz. ears; 5 eggs; salt and pepper to suit the taste.

Remove the corn from the cob, as mentioned in the "Green Corn Pudding." The splitting allows the escape of the pulp, whilst the hull is held by the cob; season, form into small cakes, and fry to a nice brown, and you have a very nice omelet.

2. APPLES—To Bake.—Steamboat Style.—Better than Preserves.—Take moderately sour apples, when ripe; and with a pocket-knife cut out the stem, and flower-end also, so as to remove the skin from

these cup-shaped cavities; wash them, and place them in a dripping-pan; now fill these cavities with brown sugar, and pretty freely between them also with sugar; then lay on a few lumps of butter over the sugar; place them, thus arranged, into the oven when you begin to heat up the stove for breakfast or dinner, and keep them in until perfectly baked through and soft.

Take them up on plates, while hot, by means of a spoon, and dip the gravy, arising from the apple-juice, sugar and butter, over them. Should any of them be left, after the meal is over, set them by until the next meal, when they may be placed in the stove oven until hot, and they will have all the beauty of the first baking. Or perhaps some persons may prefer them fried, as follows:

3. Fried Apples—Extra Nice.—Take any nice sour cooking apples, and, after wiping them, cut into slices about one-fourth of an inch thick; have a frying-pan ready, in which there is a small amount of lard, say ½ or ¾ of an inch in depth. The lard must be hot before the slices of apples are put in. Let one side of them fry until brown; then turn, and put a small quantity of sugar on the browned side of each slice. By the time the other side is browned, the sugar will be melted and spread over the whole surface.

Serve them up hot, and you will have a dish good enough for kings and queens, or any poor man's breakfast, and I think that even the President would not refuse a few slices, if properly cooked. There is but little choice between frying and baking by these plans; either one is very nice.

4. Apple Fritters.—Sour milk, 1 pt.; saleratus, 1 tea-spoon, flour to make a batter not very stiff; 6 apples, pared and cored; 3 eggs.

Dissolve the saleratus in the milk; beat the eggs, and put in; then the flour to make soft batter; chop the apples to about the size of small peas, and mix them well in the batter. Fry them in lard, as you would dough-nuts. Eaten with butter and sugar.

5. Apple Merange—An Excellent Substitute for Pie or Pudding.—First, take a deep dish and put a bottom crust into it, as for a pie; have nice sour apples, pared, sliced, and stewed, sweetening slightly; place a layer of the stewed apples upon the crust say about half an inch in thickness, then put on a layer of nice bread, spread with butter, as for eating, then another layer of the apple; now place in the oven and bake as a pudding, or pie; when done, have the whites of eggs beaten and mixed with a little loaf or other white sugar, say two eggs for a 2-quart dish; place this upon the merange and return it to the oven for a few minutes, to brown the egg mixture, or frosting. Serve with sugar dissolved in a little water, adding a little butter, with nutmeg, or lemon, as desired or preferred.

6. Bread, to Fry—Better than Toast.—Take bread that is dry; the dryer the better, so it is not mouldy; first dip it rather quickly into cold water, then into eggs which are well beat, having a little salt in them; then immediately fry for a short time in hot lard until the surface is pretty yellow or light brown, according to the heat of the lard.

I have never eaten bread cooked in any form which suits me as well as this. But the following is very nice:

7. Toast—German Style.—Bakers' bread, 1 loaf, cut into slices of half an inch in thickness; milk, 1 qt.; 3 eggs, and a little salt; beat the eggs and mix them with the milk, and flavor as for custard, not cooking it however. Dip the sliced bread into the mixture occasionally until it is all absorbed; then fry the pieces upon a buttered griddle. Serve, for dinner, with sugar syrup, flavored with lemon.

This is the German style of making toast; but is quite good enough for an American. And I have no doubt that home-made bread will answer all purposes; ours does, certainly.

8. Back-woods Preserves.—Moderately boil a pint of molasses, from 5 to 20 minutes, according to its consistency; then add 3 eggs, thoroughly beaten, hastily stirring them in, and continue to boil a few minutes longer; then season with a nutmeg or lemon.

Do not fail to give it a trial.

9. French Honey.—White sugar, 1 lb.; 6 eggs, leaving out the whites of 2; the juice of 3 or 4 lemons, and the grated rind of 2; and ¼ lb. of butter. Stir over a slow fire until it is about the consistency of honey.

This and the last, will be found to be much nearer what they represent, than the Yankee's "wooden nutmegs" did, upon trial.

10. Muffins.—To each qt. of sweet milk add 2 eggs well beaten; a lump of butter half the size of an egg, and flour enough to make a stiff batter. Stir in ½ pt. of yeast; let them stand until perfectly light, and then bake on a griddle, in tin rings, made for that purpose.

These are merely strips of tin, three-quarters of an inch wide, made into rings from two and a half to three inches in diameter, without bottom—the ring being simply placed on a griddle, and the batter poured in to fill it.

11. Mock Oysters.—Six, nice, plump, ears of sweet corn, uncooked; grate from the cob; beat 1 egg, stirring into it flour and milk, of each 1 table-spoon; season with a little salt and pepper. Put about a tea-spoon of butter into a suitable pan for frying, having mixed in the corn also, drop the mixture into the hot butter, one spoon of it in a place, turning them so as to fry brown. Serve hot, for breakfast.

Whether they imitate oysters or not, no one need regret giving them a trial.

12. Fruit Jams, Jellies, and Preserves.—The difference between common preserves, jellies, and jams, is this: Preserves are made by taking fruit and sugar, pound for pound, and simply cooking them together until the fruit is done.

13. Jellies are made by squeezing and straining out the juice only, of the fruit; then taking a pound of sugar for a pound of juice, and cooking until it jells, which is told by taking out a little upon a cold plate.

14. Jams are made by weighing the whole fruit, washing, slicing, and putting in sufficient water to cook it well, then, when cool, rubbing it through a fine sieve, and with this pulp, putting in as much sugar as there was of the fruit only, and cooking it very carefully, until the weight of the jam is the same as the fruit and added sugar; the water, you see, is all gone; and this is easily told by having previously weighed the kettle in which you are cooking it. The jam, if nicely done, contains more of the fruit flavor than the jell, and is as valuable as the jell to put into water as a drink for invalids; and better for flavoring syrups for soda fountains, etc. Strawberries, raspberries, blackberries, peaches, and pine-apples, make very nice jams for flavoring syrups. Much of the flavor of the fruit resides in the skin, pits, etc. And jams made in this way, from the blackberry, are good for sore mouth, diarrhea, dysentery, etc.

15. Fruit Extracts.—Best alcohol, 1 pt.; oil of lemon, 1 oz.; peel of 2 lemons.

Break the peels, and put in with the others for a few days; then remove them, and you will have just what you desire, for a trifling cost,

compared with the twenty-five cent bottles, which are so prominently set out as the nicest thing in the world.

This rule holds good for all fruit oils; but for fruits, such as peaches, pine-apples, strawberries, raspberries, blackberries, etc., you will take alcohol and water equal parts, and put upon them sufficient to handsomely cover; and in a few days you have the flavor and juices of the fruit, upon the principle of making "Bounce," which most men know more or less about. If persons will act for themselves, using common sense, working from known facts like these, they will not need to run after every new-fangled thing which is seen blazing forth in almost every advertisement of the day.

Vanilla, nutmeg, mace, cinnamon, etc., are made by cutting up the vanilla bean, or bruising the nutmegs, cinnamon, etc., and putting about two ounces to each pint of pure spirits, or reduced alcohol, frequently shaking for about two weeks, and filtering or pouring off very carefully; if for sale, however, they must be filtered; for coloring any of the extracts see the "Essences," and "Syrups." For cakes and pies, however, it is just as well to pulverize nutmegs, mace, cinnamon, etc., and use the powder, for the quantity required is so small that it will never be seen in the cake or pie.

MEDICATED WATERS—Rose Water.—Take carbonate of magnesia, ⅛ oz.; oil of rose, 30 drops; drop the oil upon the magnesia, and rub it together; then add, rubbing all the time, of distilled water, if you can get it, 1 qt., if not, take the purest snow or rain water,—a porcelain mortar is best, but a bowl does very well,—then filter through filtering paper.

The magnesia breaks up the oil globules and enables the water to take it up; and the filtering removes the magnesia.

2. Cinnamon Water.—Use the same amount of magnesia and water, and treat the same as the "Rose Water."

3. Peppermint, Spearmint and Pennyroyal Waters are made the same as above.

4. Camphor Water.—To make camphor water, you must first put on a few drops of alcohol; say 40 or 50 drops, to camphor gum, ¼ oz.; and rub the camphor fine, which enables you to work it up with magnesia, ½ oz.; then gradually add water, 1 qt., as mentioned in the waters above, and filtered.

The rose and cinnamon waters are used for cooking, but the others for medical purposes.

APPENDIX TO BAKERS' AND COOKING DEPARTMENT, BY THE PUBLISHER.

Arrow-Root Jelly.—To a dessert-spoonful of the powder, add as much cold water as will make it into a paste, then pour on half a pint of boiling water, stir it briskly and boil it a few minutes, when it will become a clear smooth jelly; a little sugar and sherry wine may be added for debilitated adults; but for infants, a drop or two of essence of carraway seeds or cinnamon is preferable, wine being very liable to become acid in the stomachs of infants, and to disorder the bowels. Fresh milk, either alone or diluted with water, may be substitued for the water.—*Dr. Reece.*

Arrow-Root and Tapioca Gruels.—Make a thin paste as before, and put into boiling water, adding sugar, salt, nutmeg, and a little lemon-juice.

Tapioca may be soaked 10 hours in twice the quantity of water; then add milk and water. Boil till it is soft. Flavor the same as "Arrow-root."—*A. N.*

Arrow-Root Blancmange.—A teacup of arrow-root to a pint of milk; boil the milk with twelve sweet and six bitter almonds, blanched and beaten; sweeten with loaf sugar, and strain it; break the arrow-root with a little of the milk as smooth as possible; pour the boiling milk upon it by degrees, stir the while; put it back into the pan, and boil a few minutes, still stirring; dip the shape in cold water before you put it in, and turn it out when cold.

Apple Fritters.—Take 1 pt. of milk, 3 eggs, salt just to taste, and as much flour as will make a batter. Beat the yolks and white separately, add the yolks to the milk, stir in the whites with as much flour as will make a batter; have ready some tender apples, peel them, cut them in slices round the apple; take the core carefully out of the centre of each slice, and to every spoonful of batter lay in a slice of apple, which must be cut very thin. Fry them in hot lard to a light brown on both sides.

Apple Marmalade.—Scald apples till they will pulp from the core; then take an equal weight of sugar in large lumps, just dip them in water, and boil it till it can be well skimmed, and is a thick syrup, put to it the pulp, and simmer it on a quick fire a quarter of an hour. Grate a little lemon-peel before boiled, but if too much it will be bitter.—*Ru.*

Apple Snowballs.—Swell rice in milk, and strain it off, and having pared and cored apples, put the rice round them, tying each up in a cloth. Put a bit of lemon-peel, a clove, or cinnamon in each and boil them well.

Pounding Almonds.—They should be dried for a few days after being blanched. Set them in a warm place, strewn singly over a dish or tin. A little powdered lump sugar will assist the pounding. They may be first chopped small, and rolled with a rolling pin. **Almond Paste** may be made in the same manner.

Blanched Almonds.—Put them into cold water, and heat them slowly to scalding; then take them out and peel them quickly, throwing them into cold water as they are done. Dry them in a cloth before serving.

Indian Bread by a Vermont Housekeeper.—I see in the last *Tribune* that some poor soul wants to know how to make "Indian bread." It is supposed by western people that all *Yankee housekeepers* know how to make Indian bread. It is not so, for it is seldom you see it on the tables of farmers or villagers. I will give my receipe for making it. For a good large loaf I take three pints of sifted Indian meal, three pints of rye meal, one teacup of good hop yeast, one teacup of molasses, mix very soft with warm water, pour into the pan in which it is to be baked, let it stand an hour or two till light and bake with a steady fire three hours. Unless one has good yeast there is no use in trying to make the bread.

For making yeast, I take four large potatoes, pear and throw into cold water. Put a handful of hops in a bag with a quart of water, and while it is boiling, grate the potatoes, then add three tablespoons of sugar, two of salt and one of flour; take out the bag of hops and pour the mass into the kettle and let it just come to a boil, stirring all the time. Remove from the fire and put into a pan or some vessel till cool, then add a pint or less of good sweet yeast, let it stand in a warm place, and in an hour or two it will be of a light foam, far superior I think to baker's yeast. Respectfully,

MRS. WM. HALE.

Essex Junction, Vermont, April 29.

Lemon Buns.—Take flour, one pound; bicarbonate of soda, three drs.; muriatic acid, three drs.; butter, four ozs.; loaf sugar 4 ozs.; one egg; essence of lemon, six or eight drops: make into twenty buns, and bake in a quick oven for fifteen minutes.

Bath Buns.—Take one lb. of flour, put it in a dish, and make a hole in the middle, and pour in a dessert spoon of good yeast; pour upon the yeast half a cupful of warm milk, mix in one-third of the flour, and let it rise an hour. When it has risen, put in 6 ozs. of cold butter, 4 eggs, and a few carraway seeds; mix all together with the rest of the flour. Put it in a warm place to rise. Flatten it with the hand on a paste-board. Sift 6 ozs. of loaf sugar, half the size of a pea; sprinkle the particles over the dough; roll together, to mix the sugar; let it rise, in a warm place about 20 minutes. Make into buns, and lay on buttered tins; put sugar and 9 or 10 comfits on the tops, sprinkle them with water; bake in a pretty hot oven.—*A. N.*

Beef Tea.—Cut a pound of fleshy beef in thin slices; simmer with a quart of water twenty minutes, after it has once boiled, and been skimmed. Season, if approved.—*Ru.*

Cream Cakes.—Beat the whites of 9 eggs to a stiff froth and keep it up; grate the rinds of two lemons to each white of egg. Sprinkle in a spoon of fine sugar, lay a wet sheet of paper on a tin, and drop it on in little lumps, a little distance from each other. Sift sugar over them. When put in the oven the froth will rise. As soon as coloured, they are baked; take out, and put two bottoms together; put on a sieve, and dry in a slow oven.

Cream Cheese.—Put five quarts of the last milking of a cow, called "*strippings*," in a pan with two spoons of rennet. When the curd comes strike it down with the skimmer to break it. Let it stand two hours; spread a cheese cloth on a sieve and drain upon it; break the curd a little with your hand; put it into a vat with a 2 lb. weight upon it.

After standing 12 hours, bind a fillet round. Turn every day till dry; cover with green leaves, and let them gradually ripen on a pewter plate.

Cream Cookies.—One teacup of cream, turned; ½ lb. of sugar; one or two eggs, a teaspoon of carbonate of soda, dissolved; sufficient flour to make into dough. And spices and seeds if you like.

Cakes, Iceing for.—Powder and sift 1 lb. of loaf sugar; put into a basin with the whites of three or four eggs; beat well together, and add the juice of six lemons; beat well until it becomes very light and hangs in flakes from the spoon; it is then ready for use.

Cakes, Yorkshire.—Flour two pounds; mix with it four ounces of butter melted in a pint of good milk, three spoons of yeast, and two eggs; beat all well together, and let it rise; then knead and make into cakes; let them rise on tins before you bake, in a slow oven. Another sort is made as above, leaving out the butter. The first is a shorter sort; the last lighter.

Ginger Cakes.—To two pounds of flour add three-quarters of a pound of good moist sugar, 1 oz. best Jamaica ginger well mixed in the flour; have ready three-quarters of a pound of lard, melted, and four eggs well beaten; mix the lard and eggs together, and stir into the flour, which will form a paste; roll out in thin cakes, and bake in a moderately heated oven. Lemon biscuits may be made in a similar way, by substituting essence of lemon for ginger.

Sponge Cake.—A lady favours us with the following simple recipe, which, she says, gives less trouble than any other, and has never been known to fail:—Take five eggs, and half a pound of loaf sugar, sifted; break the eggs upon the sugar, and beat all together with a steel fork for half an hour. Previously take the weight of two eggs and a half, in their shells, of flour. After you have beaten the eggs and sugar the time specified, grate in the rind of a lemon (the juice may be added at pleasure), stir in the flour, and immediately pour it in to a tin lined with buttered paper, and let it be instantly put into rather a cool oven.

Sponge Cake.—Take equal weight of eggs and sugar; half their weight in sifted flour; to twelve eggs add the grated rind of three lemons, and the juice of two. Beat the eggs carefully, the white and yolks separately, before they are used. Stir the materials thoroughly together, and bake in a quick oven.

Cake, Cocoa-Nut Sponge.—Grate a cocoa-nut, the outer part peeled off. A teaspoon of salt, and half a grated nutmeg. A pound of white sugar. Beat and strain the yolks of six eggs; the whites cut to a stiff froth. One teaspoon of essence of lemon, flour, half pint. Mix the yolks, sugar, and other ingredients, except the whites and flour. Before putting it into the oven, add the whites, and flour gradually, and gently mix it. Put it on buttered paper on tins, in a quick oven. Cover with paper lest the top harden quick.—*Gu.*

Cakes, Browning for.—½ lb. moist sugar, 2 ozs. of butter; add a a little water. Simmer till brown. A little of this mixture will give a rich color to cakes.

Pound Cake.—Take 1 lb. each of flour, sifted loaf sugar, and currants; the rind of two lemons grated; mix all together by rubbing them between the hands; then put 1 lb. of butter into a wooden bowl; place it often before the fire, if the weather is cold; when the butter is soft, beat it up with the hand till it is like a cream; break 10 or 12 eggs into a deep pan; whisk till quite frothy; put one-third of them to the butter; and beat up till well mixed; then put in half of what is

left, and mix it till it sticks to the bowl; then put in the remainder, and mix it up well; when it sticks to the bowl, it is well mixed and light: then put in the flour, etc., and mix well together. Have cake hoops, or molds papered, and put into the oven, the heat of which must be moderate. The rind of a lemon, shred very fine, may be added.

Pound Cake, a Good One.—Beat a pound of butter to a cream, and mix with it the whites and yolks of eight eggs beaten apart. Have ready, warm by the fire, a pound of flour, and the same of sifted sugar, mix them, and a few cloves, a little nutmeg, and cinnamon, in fine powder together; then by degrees work the ingredients into the butter and eggs. When well beaten, add a glass of wine and some carraways. It must be beaten a full hour. Butter a pan, and bake it a full hour in a quick oven.

Raisin Cake.—One cup of flour, two cups of cream, one cup of butter, four eggs, 1 lb. of raisins, cloves, cinnamon, candied lemon, cut extremely fine, and one teaspoon of soda.

Raisin Cake.—Take 1¼ lb. of light dough, a tea-cup of sugar, one of butter, three eggs, a tea-spoon of carbonate of soda, 1 lb. of raisins nutmeg or cinnamon to the taste; bake one hour. Let it rise before being baked.

Raisin Loaf.—To 6 lbs. of flour, add 2½ lbs. of raisins, ½ oz. of carraway and a few coriander seeds ground, a little cinnamon or clove pepper, and half a pint of barm mixed with cold water; cut the paste with a knife very well, to make the loaf appear to be fuller of raisins. For a rich loaf, add more fruit, and rub butter in the flour and sugar; bake it a fine brown on the top.

Tea Cakes.—Rub fine 4 ozs. of butter into 8 ozs. of flour; mix 4 ozs. of currants, and six of fine sugar, two yolks and one white of egg and a spoonful of brandy; roll what size you like; beat the other white of egg, and wash over them. Dust sugar upon them, or not.

Tea Cakes, Small.—Put a ¼ lb. of butter into 1 lb. of flour; mix ¼ lb. sifted loaf sugar, and wet it with water; when made up, divide into two equal parts; put 1 oz. of carraway seeds to one piece, to have two sorts. Rub the paste out very thin, and cut it out with a small round cutter; butter a baking sheet, and dust it with flour; lay the cakes on, and bake in a slow oven till of a light brown.

Cakes, Drop.—Mix flour 2 lbs.; butter 1 lb.; sugar 1 lb.; currant 1 lb.; clean and dry; then wet into a stiff paste, with two eggs, a large spoon each of orange-flower water, rose-water, sweet wine and brandy drop on a tin-plate floured; a very short time bakes them.

Cakes, Ginger.—As above; but mixing with it half an ounce of ginger.

Nice Plum Cake.—Tak 1 lb. of flour; bicarbonate of soda, ¼ oz.; butter, 6 ozs.; loaf sugar, 6 ozs.; currants, 6 ozs; three eggs; milk, about 4 ozs.; bake for one hour and a half in a tin or pan.

Soda Cake.—Take ½ lb. of flour; bicarbonate of soda, 2 drs.; tartaric acid, 2 drs.; butter 4 ozs; white sugar 2 ozs.; currants, 4 ozs.; two eggs; warm milk, half a tea-cup.

Custard Pie.—Boil a quart of milk with the rind of a lemon. Strain it, and then boil. Mix a table-spoon of flour smoothly with two of milk, and stir it into the boiling milk. Boil a minute, constantly stirring; take off, and when cool, add three beaten eggs; sweeten to your taste; bake in a quick oven.

Custard, (Baked).—Boil in a pint of milk a few coriander seeds, a little cinnamon and lemon peel; sweeten with 4 ozs. of loaf sugar, mix with it a pint of cold milk; beat 8 eggs for ten minutes; add the

other ingredients; pour it from one pan into another six or eight times, strain through a sieve; let it stand: skim the froth from the top, fill it in earthen cups, and bake immediately in a hot oven; give them a good color; ten minutes will do them.

Pickled Eggs.—If the following pickle were generally known it would be more generally used. We constantly keep it in our family, and find it an excellent pickle to be eaten with cold meat, etc. The eggs should be boiled hard (say ten minutes), and then divested of their shells; when *quite cold* put them in jars, and pour over them vinegar (sufficent to quite *cover* them), in which has been previously boiled the usual spices for pickling; tie the jar down tight with bladder, and keep them till they begin to change color.

Gingerbread Buttons, Snap.—Molasses, 3 lbs.; sugar 1 lb.; ginger 1½ oz.; seeds, etc.; butter, ½ lb. rubbed in 2 lbs. of flour; mix and drop them on tins.

Gingerbread Buttons, Best.—Molasses, 7 lbs. warmed; sugar, oatmeal, 2 lbs. each; butter, 2 lbs. rubbed in 7 lbs. of flour; candied lemon peal, 1 oz. cut very thin; carraway, cinnamon, or clove, according to taste; mix stiff, and bake in small balls on a tin in a slow oven.

Gingerbread, Fine.—Flour, 2 lbs.; sugar, 8 ozs.; orange peel, or candied lemon, cut very thin, 8 ozs.; ground ginger, 1 oz.; carraway seeds, ½ oz.; cloves, mace, allspice, according to taste; mix with these, 1½ lbs. of molasses, and ½ lb. melted butter, and 2 drs. of carbonate of soda. Mix well and let it stand 2 or 3 hours. Use flour in rolling out. Cut into shapes.

Gingerbread Nuts.—Molasses, 3 lbs.; sugar, 1 lb.; butter, 1 lb.; rubbed into 4 lbs. of flour; esence of lemon, 2 tea-spoons; ginger, seeds, etc., according to taste. Mix; drop on buttered tins; bake in a slow oven.

These may be varied by the addition of candied lemon, brandy, and a couple of eggs well beaten.

Gingerbread, Superior.—Flour, 2 lbs.; carbonate of magnesia, ½ oz.; mix, and add molasses, 1 lb.; powdered sugar, ½ lb.; melted butter, 2 ozs.; tartaric acid in solution, 2 drs. Make a stiff paste; add grated nutmeg and cinnamon, of each 2 drs.; grated nutmeg, 1½ oz. Mix well. Let it stand 1 hour, and then bake slowly.

Another Recipe.—Flour, 3 lbs.; sugar, 1 lb.; butter, 1 lb.; molasses, 1½ lb.; ginger, ½ oz.; cloves, ¼ oz.; and the peel of a good sized lemon; form into cakes and bake.

Gingerbread, Victoria.—Flour, 3½ lbs.; fine sugar, 2¼ lbs.; honey, 1½ lb; ½ lb. each of sweet almonds blanched, chopped small, and candied lemon or orange peel; the rinds of two lemons; cinnamon, 1 oz.; nutmeg ½ oz.; powdered cloves, mace, and cardamoms according to taste, and 3 table-spoons of water. Melt the sugar, and honey in water over the fire. Mix well the other articles in the flour, and pour in the syrup from the fire. Mix well. Do not bake till the day after. Mix the white of an egg and sugar, and brush it over the gingerbread.

A Good Sort Without Butter.—Molasses, 2 lbs.; 4 ozs. of orange, lemon, citron, and candied ginger, all thinly sliced; 1 oz. each coriander seeds, carraways, and bruised ginger; as much flour as will make a soft paste; bake in a quick oven on tin plates.

Gingerbread, White.—Flour, 6 lbs.; white sugar, 3 lbs.; rub 1 lb. of butter into the flour, and ½ oz. carraway seeds; mix well with milk. Make it light the same as Bath Cakes.

Ginger Cakes.—Beat 3 eggs in ½ pt. of cream; stir in a saucepan till warm; add butter, 1 lb.; loaf sugar, ½ lb.; ginger, 2½ ozs. Stir these ingredients over the fire to melt and mix; make into a good paste with 2 lbs. of flour; roll out, cut into forms half an inch thick. Lay on papers, and bake in a hot oven.

Sugar Gingerbread.—Butter, 12 ozs.; sugar, finely powdered, 8 ozs.; ground ginger, one table-spoon, and a little cinnamon, and nutmeg; beat these up to a foam; beat well 4 eggs, and mix them with the other. Add a cup of cream, a table-spoon of saleratus, or bicarbonate of potass, dissolved in hot water. Stir in fine flour as long as it can be worked and knead thoroughly. Roll into thin cakes; bake in a quick oven.

To Make Gingerbread Cake.—Take 1½ lb. of molasses; 1½ oz. of ground ginger; ½ oz. of carraway seeds; 2 ozs. of allspice; 4 ozs. of orange peal, shred fine; ½ lb. of sweet butter; 6 ozs. of blanched almonds; 1 lb. of honey; and 1½ ozs. of carbonate of soda; with as much fine flour as makes a dough of moderate consistence.

DIRECTIONS FOR MAKING.—Make a pit in five pounds of flour; then pour in the molasses, and all the other ingredients, creaming the butter; then mix them all together into a dough; work it well; then put in three-quarters of an ounce of tartaric acid, and put the dough into a buttered pan, and bake for two hours in a cool oven. To know when it is ready, dip a fork into it, and if it comes sticky, put it in the oven again, if not it is ready.

Graham Bread.—Take 1 pt. common bread sponge; 1 pt. water; ½ tea-cup nice syrup; 1 tea-spoon of soda; add graham flour to make nearly as stiff as can be stirred with a spoon; let stand till light and bake a little longer than wheat bread.

Corn Bread.—Take 1 pt of corn meal, wet with cold water, pour on boiling water to make about as thick as mush, let stand on the stove until thoroughly scalded; then add 1 tea-cup sour milk; 1 heaping tea-spoon of soda; 1 tea-cup molasses; 1 heaping tea-spoon of salt; and equal parts of corn meal and flour to make nearly as stiff as can be stirred with a spoon; let stand ½ hour in a warm place, then steam 2 hours, and bake 2 hours.

Red Currant Jelly.—With three parts of fine red currants mix one of white currants; put them into a clean preserving-pan, and stir them gently over a clear fire until the juice flows from them freely; then turn them into a fine hair sieve, and let them drain well, but without pressure. Pass the juice through a folded muslin, or a jelly bag; weigh it, and then boil it *fast* for a quarter of an hour; and for each pound, 8 ozs. of sugar coarsely powdered, stir this to it off the fire until it is dissolved, give the jelly eight minutes more of quick boiling, and pour it out. It will be firm, and of excellent color and flavor. Be sure to clear off the scum as it rises, both before and after the sugar is put in, or the preserve will not be clear. Juice of red currants, 3 lbs.; juice of white currants, 1 lb.; fifteen minutes. Sugar, 2 lbs.; eight minutes. An excellent jelly may be made with equal parts of the juice of red and of white currants, and of raspberries, with the same proportion of sugar and degree of boiling as mentioned in the foregoing recipe.

White Currant Jelly.—White currant jelly is made in the same way as red currant jelly, only it should have double refined sugar, and not be boiled above ten minutes. White currant jelly should be put through a lawn sieve.

Another Recipe for White Currant Jelly.—After the fruit is

stripped from the stalks, put it into the pan, and when it boils, run it quickly through a sieve; take a pound of sugar to each pint of juice, and let it boil twenty minutes.

An Excellent Jelly, (for the Sick-room).—Take rice, sago, pearl barley, hartshorn shavings, each 1-oz.; simmer with 3 pts. of water to 1, and strain it. When cold it will be a jelly, of which give, dissolved in wine, milk, or broth, in change with the other nourishment.

True Lovers' Knots.—Roll out a piece of puff paste into a thin sheet, cut into pieces three or four inches square, fold each corner over into the center, and cut a piece out from each side, leaving it in the form of a true lover's knot; put them on a tin, and bake them in a moderate oven; when they are done, place some jam or preserve on each point, and some in the center.

Lemon Puffs.—Beat and sift 1 lb. of refined sugar; put it into a bowl, with the juice of two lemons, and mix them together; beat the white of an egg to a high froth; put it into the bowl; put in 3 eggs with two rinds of lemon grated; mix it well up, and throw sugar on the buttered papers; drop on the puffs in small drops, and bake them in a moderately heated oven.

Lemon Whey.—Pour into boiling milk as much lemon juice as will make a small quantity quite clear; dilute with hot water to an agreeable sharp acid, and sweeten as you like.

Oyster Pie.—The following directions may be safely relied upon. Take a large dish, butter it, and spread a rich paste over the sides and around the edge, but not at the bottom. The oysters should be fresh, and as large and fine as possible. Drain off part of the liquor from the oysters. Put them into a pan, and season them with pepper, salt, and spice. Stir them well with the seasoning. Have ready the yolks of eggs, chopped fine, and the grated bread. Pour the oysters (with as much of their liquor as you please) into the dish that has the paste in it. Strew over them the chopped egg and grated bread. Roll out the lid of the pie, and put it on, crimping the edges handsomely. Take a small sheet of paste, cut it into a square, and roll it up. Cut it with a sharp knife into the form of a double tulip. Make a slit in the center of the upper crust, and stick the tulip in it. Cut out eight large leaves of paste, and lay them on the lid. Bake the pie in a quick oven.

Oyster Fritters.—Make a batter of flour, milk, and eggs; season a very little with nutmeg. Beard the oysters, and put as many as you think proper to each fritter.

Potatoes, to Boil.—Boil in a saucepan without lid, with only sufficient water to cover them; more would spoil them, as the potatoes contain much water, and it requires to be expelled. When the water nearly boils, pour it off, and add cold water, with a good portion of salt. The cold water sends the heat from the surface to the centre of the potato, and makes it mealy. Boiling with a lid on, often produces cracking.

New potatoes should be cooked soon after being dug; wash well, and boil.

The Irish, who boil potatoes to perfection, say they should always be boiled in their *jackets;* as peeling them for boiling is only offering a premium for water to run through the potato, and rendering it sad and unpalatable; they should be well washed and put into cold water.

"Stop," says one, "till I immortalize my dear old mother's recipe: "To dress a potato, wash it well, but let there be no scraping. At the thickest end cut off a piece the size of a sixpence." This is the *safety-*

valve by which the steam, generated in the potato, escapes; and such escape prevents cracking. Pour all the water off, and let the skins be thoroughly dry before peeling.

To Boil Potatoes.—Put them into a saucepan with scarcely sufficient water to cover them. Directly the skins begin to break, lift them from the fire, and as rapidly as possible pour off *every drop* of the water. Then place a coarse (we need not say clean) towel over them, and return them to the fire again until they are thoroughly done, and quite dry. A little salt, to flavor, should be added to the water before boiling.

Potatoes Fried in Slices.—Peel large potatoes, slice them about a quarter of an inch thick, or cut them into shavings, as you would peel a lemon; dry them well in a clean cloth, and fry them in lard or dripping. Take care that the fat and frying-pan are quite clean; put it on a quick fire, and as soon as the lard boils, and is still, put in the slices of potato, and keep moving them until they are crisp; take them up, and lay them to drain on a sieve. Send to table with a little salt sprinkled over them.

Potato Yeast.—Boil, and skin, and mash mealy potatoes. Mix hot water to make them as thin as pudding batter. Add to each lb. of potatoes 2 ozs. of molasses. When just warm, stir in for every lb. of potatoes 2 table-spoons of yeast. Keep it warm till it has done fermenting, and in a day it will be ready for use.

A Black Man's Recipe to Dress Rice.—Wash him well, much wash in cold water, the rice flour make him stick. Water boil all ready very fast. Throw him in, rice can't burn, water shake him too much. Boil quarter of an hour or little more; rub one rice in thumb and finger, if all rub away him quite done. Put rice in colander, hot water run away; pour cup of cold water on him, put back rice in saucepan, keep him covered near the fire, then rice all ready. Eat him up!

Puddings—Cheap, Wholesome, and Palatable.—Bread Pudding—In a three-pint tin dish beat 3 eggs, add 3 table-spoons of sugar, a little nutmeg, then fill the dish to within an inch of the top with sweet milk, stir in 1 pt. of finely broken dry bread, and bake one hour.

Rice Pudding.—Wash and scald, but not boil, a tea-cup of rice add 1 tea-cup of sugar, and 3 pts. of milk, and a little nutmeg, and bake slowly until rice is very soft. Raisins are an improvement, but do not spoil it with eggs, as most folks do.

Cookies.—Two eggs, 1 tea-cup of sugar, ½ tea-cup of butter, ½ tea-spoon of soda, 1 table-spoon of water, caraway seed; bake quickly but lightly. These cookies will be as fresh and nice when six weeks old as when first baked.

Elegant Bread Pudding.—Take light white bread, and cut it in thin slices. Put into a pudding shape a layer of any sort of preserve, then a slice of bread, and repeat until the mold is almost full. Pour over all 1 pt. of warm milk, in which 4 beaten eggs have been mixed; cover the mold with a piece of linen, place it in a saucepan with a little boiling water, let it boil twenty minutes, and serve with pudding sauce.

Batter Pudding.—Take of flour, 4 ozs.; bi-carbonate of soda, 2 drs.; a little sugar, and 1 egg. Mix with milk to a thin batter, and bake in a well-buttered tin, in a brisk oven, half an hour. A few currants may be strewed in the bottom of the tin, if preferred.

Taffy.—Butter, 2½ ozs.; sugar, 1 lb.; melt and stir over the fire till it comes to the crackled degree. The addition of a little lemon juice greatly improves it. Some add ginger. A nice taffy may be

made as above, not boiled so much, by the addition of well strained jelly, as apricot, currant, raspberry, strawberry, etc.

Everton Taffy requires more butter. Some mix with the above taffy blanched almonds.

Taffy.—To 1 lb. of raw sugar add 2 ozs. of butter. When boiled to the crackled degree, grain it, and pour it out in square tins, either oiled or buttered.

Economy of Tea.—A given quantity of tea is similar to malt—only imparting strength to a given quantity of water; therefore any additional quantity is waste. Two small tea-spoons of good black tea, and one three parts full of green, are sufficient to make three tea-cups agreeable, the water being put in, in a boiling state, at once; a second addition of water gives a vapid flavor to tea.

In preparing tea, a good economist will be careful to have the best water, that is, the softest and least impregnated with foreign mixture; for if tea be infused in hard and in soft water, the latter will always yield the greatest quantity of the tannin matter, and will strike the deepest black with sulphate of iron in solution.

Tea-Making.—Dr. Kitchiner recommends that all the water necessary should be poured in at once, as the second drawing is bad. When much tea is wanted, it is better to have two tea-pots instead of two drawings.

Another Method.—The water should be fresh boiled (not exhausted by long boiling). Scald the tea-pot and empty it; then put in as much water as necessary for the first cups; put the tea on it as in brewing, and close the lid as quickly as possible. Let it stand three minutes and a half, or, if the quantity be large, four minutes, then fill the cups. This is greatly superior to the ordinary method, the aroma being preserved instead of escaping with the steam, as it does when the water is poured on the tea.

Substitute for Cream in Tea or Coffee.—Beat the white of an egg to a froth, put to it a very small lump of butter, and mix well. Then stir it in gradually, so that it may not curdle. If perfectly mixed, it will be an excellent substitute for cream.

In making coffee, observe that the broader the bottom and the smaller the top of the vessel, the better the coffee will be.

Turkish Mode of Making Coffee.—The Turkish way of making coffee produces a very different result from that to which we are accustomed. A small conical saucepan, with a long handle, and calculated to hold about two table-spoons of water, is the vessel used. The fresh roasted berry is pounded, not ground, and about a dessert-spoon is put into the minute boiler; it is then nearly filled with water, and thrust among the embers. A few seconds suffice to make it boil, and the decoction, grounds and all, is poured out into a small cup, which fits into a brass socket, much like the cup of an acorn, and holding the china cup as that does the acorn itself. The Turks seem to drink this decoction boiling, and swallow the grounds with the liquid. We allow it to remain a minute, in order to leave the sediment at the bottom. It is always taken plain; sugar or cream would be thought to spoil it; and Europeans, after a little practice—(longer, however, than we had)—are said to prefer it to the clear infusion drank in France. In every hut these coffee boilers may be seen suspended, and the means for pounding the roasted berry are always ready at hand.

HINTS ON HOUSEKEEPING.

BY THE PUBLISHER.

A Hint on Household Management.—Have you ever observed what a dislike servants have to anything cheap? They hate saving their master's money. I tried this experiment with great success the other day. Finding we consumed a vast deal of soap, I sat down in my thinking chair, and took the soap question into consideration, and I found reason to suspect we were using a very expensive article, where a much cheaper one would serve the purpose better. I ordered half a dozen pounds of both sorts, but took the precaution of changing the papers on which the prices were marked before giving them into the hands of Betty. "Well, Betty, which soap do you find washes best?" "Oh, please sir, the dearest, in the blue paper; it makes a lather as well again as the other." "Well, Betty, you shall always have it then;" and thus the unsuspecting Betty saved me some pounds a year and washed the clothes better.—*Rev. Sidney Smith.*

Domestic Rules.—Mrs. Hamilton, in her "Cottagers of Glenburnie," gives three simple rules for the regulation of domestic affairs which deserve to be remembered, and which would, if carried into practice, be the means of saving time, labor, and patience, and of making every house a "well-ordered" one. They are as follows:—1. Do everything in its proper time. 2. Keep everything to its proper use. 3. Put everything in its proper place.

An ever-dirty hearth, and a grate always choked with cinders and ashes, are infallible evidences of bad housekeeping.

Economy.—If you have a strip of land, do not throw away soap-suds. Both ashes and soap-suds are good manure for bushes and young plants.

Woolen cloths should be washed in very hot suds, and not rinsed. Lukewarm water shrinks them.

Do not let coffee and tea stand in tin.

Scald your wooden-ware often, and keep your tin-ware dry.

Preserve the backs of old letters to write upon.

If you have children who are learning to write, buy coarse white paper by the quantity, and keep it locked up, ready to be made into writing-books. This does not cost half so much as it does to buy them at the stationer's.

See that nothing is thrown away which might have served to nourish your own family or a poorer one.

As far as possible, have pieces of bread eaten up before they become hard; spread those that are not eaten, and let them dry, to be pounded for puddings, or soaked for brewis.

Brewis is made of crusts and dry pieces of bread, soaked a good while in hot milk, mashed up, and eaten with salt. Above all, do not let crusts accumulate in such quantities that they cannot be used. With proper care, there is no need of losing a particle of bread.

All the mending in the house should be done once a week, if possible.

Never put out sewing. If it be not possible to do it in your own family, hire some one into the house, and work with them.

A warming-pan full of coals, or a shovel of coals, held over varnished furniture, will take out white spots. Care should be taken not to hold the clothes near enough to scorch; and the place should be rubbed with a flannel while warm.

Sal-volatile or hartshorn will restore colors taken out by acid. It may be dropped upon any garment without doing harm.

New iron should be very gradually heated at first. After it has become inured to the heat, it is not so likely to crack.

Clean a brass kettle, before using it for cooking, with salt and vinegar.

The oftener carpets are shaken, the longer they wear; the dirt that collects under them grinds out the threads.

Linen rags should be carefully saved, for they are extremely useful in sickness. If they have become dirty and worn by cleaning silver, etc., wash them and scrape them into lint.

If you are troubled to get soft water for washing, fill a tub or barrel half full of wood ashes, and fill it up with water, so that you may have lye whenever you want it. A gallon of strong lye, put into a great kettle of hard water, will make it as soft as rain water. Some people use pearl-ash, or potash; but this costs something, and is very apt to injure the texture of the cloth.

Do not let knives be dropped into hot dish-water. It is a good plan to have a large tin pot to wash them in, just high enough to wash the blades without wetting the handles.

It is better to accomplish perfectly a very small amount of work, than to half do ten times as much.

Charcoal powder will be found a very good thing to give knives a first-rate polish.

A bonnet and trimmings may be worn a much longer time, if the dust be brushed well off after walking.

Much knowledge may be obtained by the good housewife observing how things are managed in well-regulated families.

Apples intended for dumplings should not have the core taken out of them, as the pips impart a delicious flavor to the dumpling.

A rice pudding is most excellent without either eggs or sugar, if baked gently; it keeps better without eggs.

"Willful waste makes woful want." Do not cook a fresh joint whilst any of the last remains uneaten—hash it up, and with gravy and a little management, eke out another day's dinner.

The shanks of mutton make a good stock for nearly any kind of gravy, and they are very cheap—a dozen may be had for a penny, enough to make a quart of delicious soup.

Thick curtains, closely drawn around the bed, are very injurious, because they not only confine the effluvia thrown off from our bodies whilst in bed, but interrupt the current of pure air.

Regularity in the payment of accounts is essential to housekeeping. All tradesmen's bills should be paid weekly, for then any errors can be detected whilst the transactions are fresh in the memory.

Allowing children to talk incessantly is a mistake. We do not mean to say that they should be restricted from talking in proper seasons, but they should be taught to know when it is proper for them to cease.

Blacking for Leather Seats, etc.—Beat well the yolks of two eggs and the white of one; mix a table-spoon of gin and a tea-spoon

of sugar, thicken it with ivory black, add it to the eggs, and use as common blacking; the seats or cushions being left a day or two to harden. This is good for dress boots and shoes.

Black Reviver for Black Cloth.—Bruised galls, 1 lb.; logwood, 2 lbs.; green vitriol, ½ lb.; water, 5 qts. Boil for two hours, and strain. Used to restore the color of black cloth.

A Green Paint for Garden Stands, etc., may be obtained by mixing a quantity of mineral green and white lead, ground in turpentine, with a small portion of turpentine varnish, for the first coat; for the second, put as much varnish in the color as will produce a good gloss.

Hints for Home Comfort.—Eat slowly and you will not over-eat.

Keeping the feet warm will prevent headaches.

Late at breakfast—hurried for dinner—cross at tea.

A short needle makes the most expedition in plain sewing.

Between husband and wife little attentions beget much love.

Always lay your table neatly, whether you have company or not.

Put your balls or reels of cotton into little bags, leaving the ends out.

Whatever you may choose to give away, always be sure to *keep your temper.*

Dirty windows speak to the passer-by of the negligence of the inmates.

In cold weather a leg of mutton improves by being hung three, four, or five weeks.

When meat is hanging, change its position frequently, to equally distribute the juices.

There is much more injury done by admitting visitors to invalids than is generally supposed.

Matches, out of the reach of children, should be kept in every bedroom. They are cheap enough.

Apple and suet dumplings are lighter when boiled in a net than a cloth. Scum the pot well.

When chamber towels get thin in the middle, cut them in two, sew the salvages together, and hem the sides.

When you are particular in wishing to have precisely what you want from a butcher's, go and purchase it yourself.

One flannel petticoat will wear nearly as long as two, if turned behind part before, when the front begins to wear thin.

People in general are not aware how very essential to the health of the inmates is the free admission of light into their houses.

When you dry salt for the table, do not place it in the salt-cellar until it is cold, otherwise it will harden into a lump.

Never put away plate, knives and forks, etc., uncleaned, or great inconvenience will arise when the articles are wanted.

Feather beds should be opened every third year, the ticking well dusted, soaped, and waxed, the feathers dressed and returned.

Persons of defective sight, when threading a needle, should hold it over something white, by which the sight will be assisted.

In mending sheets and shirts, put the pieces sufficiently large, or in the first washing the thin parts give way, and the work is all undone.

Reading by candle-light, place the candle behind you, that the rays may pass over your shoulder on to the book. This will relieve the eyes.

A wire fire-guard, for each fire-place in a house, costs little, and greatly diminishes the risk to life and property. Fix them before going to bed.

In winter, get the work forward by daylight, to prevent running about at night with candles. Thus you escape grease spots, and risks of fire.

Be at much pains to keep your children's feet dry and warm. Don't bury their bodies in heavy flannels and wools, and leave their knees and legs naked.

Apples and pears, cut into quarters and stripped of the rind, baked with a little water and sugar, and eaten with boiled rice, are capital food for children.

A leather strap, with a buckle to fasten, is much more commodious than a cord for a box in general use for short distances; cording and uncording is a tedious job.

After washing, overlook linen, and stitch on buttons, hooks and eyes, etc.; for this purpose keep a "housewife's friend," full of miscellaneous threads, cottons, buttons, hooks, etc.

For ventilation open your windows both at top and bottom. The fresh air rushes in one way, while the foul makes its exit the other. This is letting in your friend and expelling your enemy.

There is not any real economy in purchasing cheap calico for gentlemen's night-shirts. Cheap calico soon wears into holes, and becomes discolored in washing.

Sitting to sew by candle-light at a table with a dark cloth on it, is injurious to the eyesight. When no other remedy presents itself, put a sheet of white paper before you.

Persons very commonly complain of indigestion; how can it be wondered at, when they seem, by their habit of swallowing their food wholesale, to forget for what purpose they are provided with teeth?

Never allow your servants to put wiped knives on your table, for, generally speaking, you may see that they have been wiped with a dirty cloth. If a knife is brightly cleaned, they are compelled to use a clean cloth.

There is not anything gained in economy by having very young and inexperienced servants at low wages; they break, waste, and destroy more than an equivalent for higher wages, setting aside comfort and respectability.

No article in dress tarnishes so readily as black crape trimmings, and few things injure it more than damp; therefore, to preserve its beauty on bonnets, a lady in nice mourning should, in her evening walks, at all seasons of the year, take as her companion an old parasol to shade her crape.

If your flat-irons are rough and smoky, lay a little fine salt on a flat surface and rub them well; it will prevent them from sticking to anything starched, and make them smooth.

Rub your griddle with fine salt before you grease it, and your cake will not stick.

When walnuts have been kept until the meat is too much dried to be good, let them stand in milk and water eight hours, dry them, and they will be as fresh as when new.

It is a good plan to keep your different kinds of pieces, tape, thread, etc., in separate bags, and there is no time lost in looking for them.

Oat straw is best for filling beds, and it is well to change it as often as once a year.

Cedar chests are best to keep flannels, for cloth moths are never found in them. Red cedar chips are good to keep in drawers, wardrobes, closets, trunks, etc., to keep out moths.

When cloths have acquired an unpleasant odor by being from damp air, charcoal laid in the folds will soon remove it.

If black dresses have been stained, boil a handful of fig leaves in a quart of water, and reduce it to a pint. A sponge dipped in the liquid and rubbed upon them, will entirely remove stains from crapes, bombazines, etc.

In laying up furs for summer, lay a tallow candle in or near them, and danger from worms will be obviated.

To prevent metals from rusting, melt together three parts of lard and one of resin, and apply a very thin coating. It will preserve Russia iron stoves and grates from rusting during summer, even in damp situations. The effect is equally good on brass, copper, steel, etc. The same compound forms an excellent water-proof paste for leather. Boots, when treated with it, will soon after take the usual polish, when blacked, and the soles may be saturated with it.

Starching.—Take two ounces of fine white gum arabic, put it in a pitcher, and pour on it one pint of boiling water; cover it, and let it stand all night. In the morning pour it into a bottle, and cork it. A table-spoon of it put in a pot of ordinary starch will improve it very much.

Butter—To Preserve for Winter.—Take two parts of the best common salt, one part of *good* loaf sugar, and one part of saltpetre beaten, and blended well together. Of this composition put 1 oz. to 16 ozs. of butter, and work it well together in a mass. Press it into the pans after the butter has become cool; for friction, though it be not touched by the hands, will soften it. The pans should hold ten or twelve pounds each. On the top put some salt; and when that is turned into brine, if not enough to cover the butter entirely, add some strong salt and water.

Another Mode of Preserving.—Pour a pint of boiling water on 1 lb. of common salt; add ½ oz. of saltpetre, 1 oz. of lump sugar. Let it stand till cold. Pour it off clear of sediment and put the butter into it. This pickle will keep butter firm and sweet during the hottest weather.

Charcoal.—All sorts of glass vessels and other utensils may be purified from long retained smells of every kind, in the easiest and most perfect manner, by rinsing them out well with charcoal powder after the grosser impurities have been scoured off with sand and potash. Rubbing the teeth and washing out the mouth with fine charcoal powder, will render the teeth beautifully white, and the breath perfectly sweet, where an offensive breath has been owing to a scobutic disposition of the gums. Putrid water is immediately deprived of its bad smell by charcoal. When meat, fish, etc., from intense heat, or long keeping, are likely to pass into a state of corruption, a simple and pure mode of keeping them sound and healthful is by putting a few pieces of charcoal, each about the size of an egg, into the pot or sauce-pan wherein the fish or flesh are to be boiled. Among others, an experiment of this kind was tried upon a turbot, which appeared to be too far gone to be eatable; the cook, as advised, put three or four pieces of charcoal, each of the size of an egg, under the strainer, in the fish kettle; after boiling the proper time, the turbot came to the table sweet and firm.

China and Glass-ware.—The best material for cleansing either porcelain or glass-ware, is fuller's earth; but it must be beaten into a fine powder, and carefully cleared from all rough or hard particles, which might endanger the polish of the brilliant surface.

In Lighting Candles, always hold the match to the side of the wick, and not over the top.

House Cleaning.—I do not wish to boast, yet our house is never upside down with house cleaning. Clean but one room at a time, setting everything as it should be before beginning another. Try it, and see if your family and chance visitors will not smile as pleasantly as is customary. A house upside down from garret to cellar does not often improve one's temper.

Cleaning Carpets.—Take a pail of cold water and add to it a gill of ox-gall. Rub it into the carpet with a soft brush. It will raise a lather, which must be washed off with clear cold water. Rub dry with a clean cloth. In nailing down a carpet after the floor has been washed, be certain that the floor is quite dry, or the nails will rust and injure the carpet. Fuller's earth is used for cleaning carpets, and weak solutions of alum or soda are used for reviving the colors. The crumb of a hot wheaten loaf rubbed over a carpet has been found effective.

Beat a Carpet on the wrong side first; and then more gently on the right side. Beware of using sticks with sharp points, which may tear the carpet.

Sweeping Carpets.—Persons who are accustomed to use tea-leaves for sweeping their carpets, and find that they leave stains, will do well to employ fresh cut grass instead. It is better than tea-leaves for preventing dust, and gives the carpets a very bright, fresh look.

A Half-worn Carpet may be made to last longer by ripping it apart, and transposing the breadths.

A Stair Carpet should never be swept down with a long broom, but always with a short-handled brush, and a dust-pan held closely under each step of the stairs.

Oil-Cloth should never be scrubbed with a brush, but, after being first swept, it should be cleansed by washing with a large soft cloth and lukewarm or cold water. On no account use soap or hot water, as either will bring off the paint.

Straw Matting may be cleaned with a large coarse cloth dipped in salt and water, and then wiped dry; the salt prevents the matting from turning yellow.

Method of Cleaning Paper-Hangings.—Cut into eight half quarters a quartern loaf, two days old; it must neither be newer nor staler. With one of these pieces, after having blown off all the dust from the paper to be cleaned, by the means of a good pair of bellows, begin at the top of the room, holding the crust in the hand, and wiping lightly downward with the crumb, about half a yard at each stroke, until the upper part of the hangings is completely cleaned all round. Then go round again, with the like sweeping stroke downwards, always commencing each successive course a little higher than the upper stroke had extended, till the bottom be finished. This operation, if carefully performed, will frequently make very old paper look almost equal to new. Great caution must be used not by any means to rub the paper hard, nor to attempt cleaning in the cross or horizontal way. The dirty part of the bread, too, must be each time cut away, and the pieces renewed as soon as it may become necessary.

Preserving the Color of Dresses.—The colors of merinos, mousseline-de-laines, ginghams, chintzes, printed lawns, etc., may be preserved by using water that is only milk-warm; making a lather with white soap, *before* you put in the dress, instead of rubbing it on the material; and stirring into a first and second tub of water a large tablespoon of ox-gall. The gall can be obtained from the butcher, and a

bottle of it should always be kept in every house. No colored articles should be allowed to remain long in the water. They must be washed fast, and then rinsed through two cold waters. Into each rinsing water stir a tea-spoon of vinegar, which will help to brighten the colors; and after rinsing, hang them out immediately. When *ironing-dry* (or still a little damp), bring them in; have irons ready heated, and iron them at once, as it injures the color to allow them to remain damp too long, or to sprinkle and roll them up in a cover for ironing next day. If they cannot be conveniently ironed immediately, let them hang till they are *quite* dry, and then damp and fold them on the *following day*, a quarter of an hour before ironing. The best way is not to do colored dresses on the day of the general wash, but to give them a morning by themselves. They should only be undertaken in clear bright weather. If allowed to freeze, the colors will be irreparably injured. We need scarcely say that no colored articles should ever be boiled or scalded. If you get from a shop a slip for testing the durability of colors, give it a fair trial by washing it as above; afterwards pinning it to the edge of a towel, and hanging it to dry. Some colors (especially pinks and light greens), though they may stand perfectly well in washing, will change as soon as a warm iron is applied to them; the pink turning purplish, and the green bluish. No colored articles shoul be smoothed with a *hot* iron.

Domestic Rules.—Have a place for everything—and everything in its place, when wanted. Do everything in its proper time. Keep everything to its proper use. Keep your temper, and be forbearing. Be economical, and not extravagant.—Avoid luxuries; plain living is best for bodily health, and mental comfort. Avoid intemperance as you would the fiercest tiger.

Furniture Polish.—The cheapest is a mixture of linseed-oil and turpentine, laid on in a thin coat, rubbed off with a soft cloth and polished.

Furniture in constant use is greatly improved by washing with vinegar and water, and afterwards applying cold drawn linseed-oil rubbing it very much. It should be rubbed again in a day or two afterwards.

Or, linseed-oil, 1 pt.; spirits of wine, ½ gill; mix well. Apply with a linen rag. Rub dry with a soft cotton cloth. Rub last and hard with a piece of old silk. In time it will have a most beautiful gloss. Or, linseed-oil, bees' wax scraped into, and gradually dissolved in turpentine, to the thickness of cream. Apply as above, and rub well.

Flannel.—Before it is made up, flannel should be immersed in hot water.

Flannels, to Wash.—Do not use boiling water, but as hot as the hands can bear. Wash with good brown soap and a little pearl-ash, or soda and blue.

All Flannels should be soaked before they are made up, first in cold then in hot water, in order to shrink them.

Flannel should always be washed with white soap, and in hot but not boiling water.

To Clean Looking-Glasses.—First wash the glass all over with lukewarm soapsuds and a sponge. When dry, rub it bright with a buckskin and a little prepared chalk finely powdered.

Hams, to Cure.—If the weather be cool, hang it up two days before it is salted. Beat it with a rolling-pin. Take plenty of common salt; coarse sugar, ½ lb.; saltpetre, 4 ozs.; mix; warm; rub the ham with it well, and lay the rest of the salt upon it; in two days turn it

rub it well with brine; baste it several times a day for a month, for a large ham; drain, wash off the salt with cold water; dry with a cloth; rub black pepper over the inside and in at the knuckles; hang in a warm room to dry.

Hams, to Keep.—The most effectual way is to tie them closely in cotton or canvass bags. Hang in a dry, cool, and well ventilated room when bagged. The bags should be whitewashed.

To Preserve Steel Goods from Rust.—After bright grates have been thoroughly cleaned, they should be dusted over with unslacked lime, and thus left until wanted. The coils of piano wires thus sprinkled, will keep from rust for many years. Table-knives, which are not in constant use ought to be put in a case in which sifted quicklime is placed, about eight inches deep. They should be plunged to the top of the blades, but the lime should not touch the handles.

Iron and Steel Goods from Rust.—Dissolve half an ounce of camphor in one pound of hog's lard; take off the scum; mix as much black lead as will give the mixture an iron color. Iron and steel goods, rubbed over with this mixture, and left with it on twenty-four hours, and then dried with a linen cloth, will keep clean for months. Valuable articles of cutlery should be wrapped in *zinc foil*, or be kept in boxes lined with zinc. This is at once an easy and most effective method.

Iron-Mould, to Remove.—Rub the iron-mould part with a little oxalic acid, or salts of lemon, dissolved in warm water. After remaining ten minutes, rinse well in warm and then in cold water. Or, apply a mixture of milk and salts.

Iron and Steel, to Prevent from Rusting.—Fat oil varnish, one part, and rectified spirits of turpentine, three parts, intimately mixed, and applied with a sponge. Camphor, lard, and black lead, mixed, applied, and after two days wiped off, will preserve from rust. Or, smear over the iron, or metal, hardware, etc., with melted mutton suet, and dust with powdered unslacked lime.

Brown paper is a good preservative from rust. Hence all Sheffield and Birmingham Hardware, Cutlery, etc., are wrapped in brown paper.

Kettles, Incrustation or Furring to Prevent.—Keep in the vessel a clean marble, a cockle, or oyster shell; these will attract the particles of sand.

Leather, To Clean.—Uncolored leather may be cleaned by applying a solution of oxalic acid with a sponge. Dissolve in warm water.

Knives, Handles of, to Fasten.—Melt resin, add brick-dust, and mix well together. This is a very good cement for this and other purposes. Shellac, and prepared chalk, intimately mixed, answer well. Heat the part to be inserted, and fill the aperture with the mixture. Press it in.

Milk, to Preserve.—Milk often turns by an acid developed in the liquid. To prevent it, add to the milk a small portion of bi-carbonate of soda. This is not at all injurious to health; but rather aids digestion. Many of the great dairies on the continent adopt this method.

Mildew, to Remove.—Soap the linen previously wetted, and apply salt and lemon juice to both sides; or apply finely powdered pipe clay, or Fuller's earth, or finely powdered chalk. Expose it for several hours to the atmosphere.

Mildew, to Remove.—Mix soft soap with powdered starch, half as much salt, and the juice of a lemon, and lay on with a brush. Let it lay on the grass day and night till the stain is gone. Or, take 2 ozs. of

chloride of lime, pour on it a quart of boiling water, and then add 3 qts. of cold water; steep the linen 10 or 12 hours, when every spot will be extracted.

Mix oxalic acid, citric acid, and milk together; rub into the linen; repeat as it dries; wash, and bleach on the grass.

Marble, to Clean.—Soap lees mixed with quick-lime, pretty thick, and applied for a day, then washed off with soap and water. Or, muriatic acid diluted with water, taking care that it be not too strong. Or, soft soap, 1 lb.; whiting, powdered, 1 lb.; soda, 1 oz.; boil together 20 minutes; apply for 24 hours, wash off with clean water, and polish with a piece of felt, or coarse flannel. Iron stains on marble are removed by a mixture of lemon juice and sulphuric acid; apply for a few minutes, and then rub with a soft cloth.

Marble, Imitation of.—Make a solution of alum, and of half as much of the best glue as alum. Mix with one part whiting, or rather less, and three parts of well-baked plaster of Paris. It may be colored by first staining the water. It sets very hard.

Marble, to Polish.—Mix a quantity of the strongest soap-lees with quick-lime, to the consistence of milk, and lay it on the stone, etc., for twenty-four hours, clean it afterwards with soap and water, and it will appear as new.

To Clean Marble.—Take two parts of common soda, one part of pumice stone, and one part of finely powdered chalk; sift it through a fine sieve, and mix it with water; then rub it well all over the marble, and the stains will be removed; then wash the marble over with soap and water, and it will be as clean as it was at first.

Glass should be washed in cold water, which gives it a brighter and clearer look than when cleansed with warm water.

Musty Casks, to Sweeten.—Throw in burning coals, and then cold water. Public brewers wash their casks with lime and water, mixed nearly to the consistence of paint; remain till dry, and then wash well with water.

To Stop the Ravages of Moths.—Camphor will not stop the ravages of moths in carpets after they have commenced eating. Then they pay no regard to the presence of camphor, cedar, or tobacco. A good way to kill them is to take a coarse crash towel and wring it out of clear water. Spread it smoothly on the carpet, then iron it; dry with a good hot iron, repeating the operation on all suspected places and those least used. It does not injure the pile or color of the carpet in the least. It is not necessary to press hard, heat and steam being the agents, and they do the work effectually on worms and eggs. Then the camphor will doubtless prevent future depredations of the miller.

Our Recipe for Curing Meat.—To one gallon of water, take 1½ lbs. of salt; ½ lb. of sugar; ½ oz. of saltpetre; ½ oz. of potash. In this ratio the pickle can be increased to any quantity desired. Let these be boiled together until all the dirt from the sugar rises to the top and is skimmed off. Then throw it into a tub to cool, and when cold pour it over your beef or pork, to remain the usual time, say four or five weeks. The meat must be well covered by the pickle, and should not be put down for at least two days after killing, during which time it may be slightly sprinkled with powdered saltpetre, which removes all the surface blood, etc., leaving the meat fresh and clean. Some omit boiling the pickle, and find it to answer well, though the operation of boiling purifies the pickle by throwing off the dirt always to be found in salt and sugar.

If this recipe is properly tried, it will never be abandoned. There is none [illegible]ss it, if so good.—*Germantown Telegraph.*

Odors, Unpleasant to Remove.—Burnt coffee is the best disinfectant, and it is very agreeable. For water closets, night chairs, etc., chloride of lime, and even common lime, should be used. Or, sugar of lead, 1 oz.; aquafortis, 1 oz.; in nearly 1 quart of water. This is effectual to cleanse utensils from bad odors. Or, charcoal powder, and camphor dissolved; the articles well rinsed with the composition.

Poultry, to Feed.—"As I suppose you keep poultry, I may tell you that it has been ascertained that if you mix with their food a sufficient quantity of egg-shells or chalk, which they eat greedily, they will lay *cæteris paribus*, two or three times as many eggs as before. A well fed fowl is disposed to lay a vast number of eggs, but cannot do so without the material for the shells, however nourishing in other respects her food may be; indeed, a fowl fed on food and water free from carbonate of lime, and not finding any in the soil, or in the shape of mortar, which they often eat off the wall, would lay no eggs at all with the best will in the world"—*Professor Gregory.*

Picture Varnish.—Mastic varnish.

Paint, To Remove from Cloth.—Apply spirits of turpentine with a sponge.

Grease on cloth may be removed by frequent layers of blotting paper placed over the grease spot, and pressing with a flat-iron.

Paint, To Remove Spots of.—Apply spirits of turpentine to the spot, and after a while rub the cloth as if washing, and the paint will crumble off; if not, apply the turpentine again.

Paint, To take away the Smell of.—Water neutralizes the smell of paint. Vessels of water placed in a newly painted room, will remove the smell, especially if impregnated with a little sulphuric acid. Or straw and hay well saturated with water. Or chloride of lime and water.

To Clean Paint.—A correspondent of the *Country Gentleman* says: Use but little water at once; keep it warm and clean by changing it often. A flannel cloth takes off all fly specks better than cotton. Soap will remove the paint, so use but little of it. Cold tea is the best liquid for cleaning varnished paint, window panes and mirrors. A saucer of sifted ashes should always be standing at hand to clean unvarnished paint that has become badly smoked; it is better than soap. Never put soap upon glass unless it can be thoroughly rinsed off, which can never be done to window-glass. Wash off the specks with warm tea, and rub the panes dry; then make a paste of whiting and water, and put a little in the center of each pane. Take a dry cloth and rub it all over the glass, then rub it off with a chamois-skin or flannel, and your glass will shine like crystal.

Paint.—To get rid of the smell of oil paint, plunge a handful of hay into a pailful of water, and let it stand in the room newly painted.

Iron Stains may be removed from marble by wetting the spots with oil of vitriol, or with lemon-juice, or with oxalic acid diluted in spirit of wine, and, after a quarter of an hour, rubbing them dry with a soft linen cloth.

To Take Marking-Ink out of Linen.—Use a saturated solution of cyanuret of potassium applied with a camel-hair brush. After the marking-ink disappears, the linen should be well washed in cold water.

To Take Stains of Wine out of Linen.—Hold the articles in milk while it is boiling on the fire, and the stains will soon disappear.

Fruit Stains in Linen.—To remove them, rub the part on each side with yellow soap, then tie up a piece of pearlash in the cloth, etc., and

soak well in hot water, or boil; afterwards expose the stained part to the sun and air until removed.

Mildewed Linen may be restored by soaping the spots while wet, covering them with fine chalk scraped to powder, and rubbing it well in.

To keep Moths, Beetles, etc., from Clothes.—Put a piece of camphor in a linen bag, or some aromatic herbs, in the drawers, among linen or woolen clothes, and neither moth nor worm will come near them.

Clothes closets that have become infested with moths should be well rubbed with a strong decoction of tobacco, and repeatedly sprinkled with spirits of camphor.

Medicine Stains may be removed from silver spoons by rubbing them with a rag dipped in sulphuric acid, and washing it off with soap-suds.

To Remove Iron Rust or Tomato Stains from Linen or Cotton Cloth.—Wet the spot with cold water, and place the cloth in the sunshine. Then mix equal quantities of cream-tartar and table salt, and sprinkle the mixture upon it until the dampness has absorbed a great deal, then lay on enough to hide the spot. Wet the spot with cold water every half hour, and, if the stain is then seen, cover it again with the cream-tartar and salt. Keep it in the sunshine, and continue these applications till the stain is gone—if recently contracted, two or three applications will remove it.

Muslins, To Keep a Good Color.—Never wash muslins, or any kind of cotton goods, with linen; for the latter discharges a kind of gum, and coloring matter, every time it is washed, which discolors the muslin and cotton—wash them by themselves.

Muslins, Uninflammable.—Mix with starch about the same weight of carbonate of lime, commonly called Spanish white or Spanish chalk. It does not deteriorate the appearance or injure the material of the muslin.

Velvet.—When velvet gets plushed from pressure, hold the parts over a basin of *hot* water, with the lining of the article next the water; the pile will soon rise, and assume its original beauty.

To Renovate Silks.—Sponge faded silks with warm water and soap, then rub them with a dry cloth on a flat board; afterwards iron them on the *inside* with a smoothing-iron. Old black silks may be improved by sponging with spirits; in this case, the ironing may be done on the right side, thin paper being spread over to prevent glazing.

Black Silk Reviver.—Boil logwood in water for half an hour; then simmer the silk half an hour; take it out, and put into the dye a little blue vitriol, or green copperas; cool it, and simmer the silk for half an hour. Or, boil a handful of fig-leaves in two quarts of water until it is reduced to one pint; squeeze the leaves, and bottle the liquor for use. When wanted, sponge the silk with this preparation.

Restoring Color to Silk.—When the color has been taken from silk by acids, it may be restored by applying to the spot a little harts-horn, or sal-volatile.

Ink Stains.—Very frequently, when logwood has been used in manufacturing ink, a reddish stain still remains, after the use of oxalic acid, as in the former directions. To remove it, procure a solution of the chloride of lime, and apply it in the same manner as directed for the oxalic acid.

Grease Spots from Silk.—Upon a deal table lay a piece of woolen cloth or baize, upon which lay smoothly the part stained, with the

right side downwards. Having spread a piece of brown paper on the top, apply a flat-iron just hot enough to scorch the paper. About five or eight seconds is usually sufficient. Then rub the stained part briskly with a piece of cap-paper.

Washing Bed Furniture, etc.—Before putting into the water, see that you shake off as much dust as possible, or you will greatly increase your labor. Use no soda, or pearlash, or the articles will lose their color. Use soft water, not hot, but warm; have plenty of it. Rub with mottled soap. On wringing out the second liquor, dip each piece into cold hard water for finishing. Shake out well, and dry quickly. If starch is desired, it may be stirred into the rinsing water.

Washing.—To save your linen and your labor—pour on half a pound of soda two quarts of boiling water, in an earthenware pan; take half a pound of soap, shred fine; put it into a saucepan with two quarts of cold water; stand it on a fire till it boils; and when perfectly dissolved and boiling, add it to the former. Mix it well, and let it stand till cold, when it will have the appearance of a strong jelly. Let your linen be soaked in water, the seams and any other soiled part rubbed in the usual way, and remain till the following morning. Get your copper ready, and add to the water about a pint basin full; when *lukewarm*, put in your linen, and allow it to boil for twenty minutes. Rinse it in the usual way, and that is all which is necessary to get it clean, and to keep it in good color. The above recipe is invaluable to housekeepers. If you have not tried it, do so without delay.

When water is hard, and will not readily unite with soap, it will always be proper to boil it before use; which will be found sufficiently efficacious, if the hardness depends solely upon the impregnation of lime. Even exposure to the atmosphere will produce this effect in a great degree upon spring water so impregnated, leaving it much fitter for lavatory purposes. In both cases the water ought to be carefully poured off from the sediment, as the neutralized lime, when freed from its extra quantity of carbonic acid, falls to the bottom by its own gravity. To economize the use of soap, put any quantity of pearlash into a large jar, covered from the dust; in a few days the alkali will become liquid, which must be diluted in double its quantity of soft water, with an equal quantity of new-slacked lime. Boil it half an hour, frequently stirring it; adding as much more hot water, and drawing off the liquor, when the residuum may be boiled afresh, and drained, until it ceases to feel acrid to the tongue.

Water, To Purify.—Put into it powdered charcoal, then filter through a compressed sponge, and it will become perfectly sweet, however impure previously.

Water may be filtered and purified by means of a deep flower-pot, with a compressed sponge in the hole at the bottom. Put over the sponge an inch thick of pebbles, next an inch of coarse sand, next a layer of charcoal, and over again pebbles. The water will filter pure and clear through the hole into another vessel.

Water, To Purify.—A large spoonful of pulverized alum sprinkled into a hogshead of water (the water stirred round at the time), will, after the lapse of a few hours, so purify it that it will be found to possess nearly the freshness and clearness of finest spring water. A pail-ful containing four gallons may be purified by a single spoonful; or a mixture of one part chalk and two of alum will be still better.

Water, to Soften.—Wood ashes form a good lye for softening water, but care must be taken that they should be all wood.

Water, Hard, To Make Soft.—Boil it, and expose it to the atmosphere. Add a little carbonate of soda.

MISCELLANEOUS DEPARTMENT.

WASHING FLUID—Saving Half the Wash-Board Labor.—Sal-soda, 1 lb.; stone lime, ½ lb.; water, 5 qts. Boil a short time, stirring occasionally; then let it settle and pour off the clear fluid into a stone jug, and cork for use. Soak your white clothes over night, in simple water; wring out, and soap wristbands, collars, and dirty or stained places. Have your boiler half filled with water, and when at scalding heat, put in one common tea-cup of the fluid, stir, and put in your clothes, and boil for half an hour; then rub lightly through one suds only, rinsing well in the bluing water, as usual, and all is complete.

If you wish to wash on Monday, put warm suds to the clothes whilst breakfast is being got ready; then wring out and soap as above will do just as well as soaking them over night, and my wife thinks better.

For each additional boiler of clothes add half a cup of the fluid only; of course boiling in the same water through the whole washing. If more water is needed in the boiler for the last clothes, dip it from the sudsing tub. Soak your woolen and calico in the suds from which you have washed the white clothes, whilst hanging them out, dipping in some of the boiling water from the boiler, if necessary; then wash out the woolen and calico as usual—of course, washing out woolen goods before you do the calico. The fluid brightens instead of fading the colors in calico.

This plan not only saves the two rubbings which women give their clothes before boiling, and more than half of the soap—does not injure the clothes, but saves their wear in two rubbings before boiling, and is a good article for removing grease from floors, doors, and windows, and to remove tar or grease from the hands, etc.

I hope every lady into whose hands this recipe may fall, will give it a trial, as my family have now used it over seven years, not missing only two washings. It does not rot clothes, but makes them wash full or more than one-half easier than the old way. Seven years ought to be considered a sufficient test.

The honor of this recipe is accredited to Prof. Liebig, of Germany.

I have found many women using turpentine, alcohol, ammonia, camphor gum, etc., in their washing fluids; but none of them ought ever to be used for such purposes, (one woman lost the use of her arm for six months, by using a fluid containing turpentine); the turpentine and alcohol especially, tend to open the pores of the skin, and thus make the person more liable to take cold in hanging out the clothes, as also to weaken the arm.

And here let me say, if it is possible to avoid it, never allow the woman who washes the clothes, and thus becomes warm and sweaty, to hang them out; and especially ought this to be regarded in the win-

ter or windy weather. Many consumptions are undoubtedly brought on by these frequently repeated colds, in this way. It works upon the principle that two thin shoes make one cold, two colds an attack of bronchitis, two attacks of bronchitis one consumption—the end, a coffin.

LIQUID BLUING—For Clothes.—Most of the bluing sold is poor stuff, leaving specks in the clothes. To avoid this:

Take best Prussian-blue, pulverized, 1 oz.; oxalic acid, also pulverized, ½ oz.; soft water, 1 qt. Mix. The acid dissolves the blue and holds it evenly in the water, so that specking will never take place. One or two table-spoons of it is sufficient for a tub of water, according to the size of the tub.

Chinese-blue, when it can be got, is the best, and only costs one shilling an ounce, with three cents for the acid, will give better satisfaction than fifty cents worth of the common bluing. This amount has now lasted my family over a year.

SOAPS.—Soft Soap—For Half the Expense and One-fourth the Trouble of the Old Way.—Take white-bar soap, 4 lbs., cut it fine and dissolve, by heating in soft water, 4 gals, adding sal-soda, 1 lb. When all is dissolved and well mixed, it is done.

Yellow soap does very well, but Colgate's white is said to be the best. But our "White Hard Soap" is the same kind.

This soap can be made thicker or more thin, by using more or less water, as you may think best after once making it. Even in common soft soap, if this amount of sal-soda is put into that number of gallons, washing will be done much easier, and the soap will more than compensate for the expense and trouble of the addition.

2. German Erasive, or Yellow Soap.—Tallow and sal-soda, of each, 112 lbs.; resin, 56 lbs.; stone lime, 28 lbs.; palm oil, 8 lbs.; soft water, 28 gals; or, *for small quantities*, tallow and sal-soda, of each, 1 lb.; resin, 7 ozs.; stone lime, 4 ozs.; palm oil, 1 oz.; soft water, 1 qt.

Put soda, lime and water into a kettle, and boil, stirring well; then let it settle, and pour off the lye. In another kettle, melt the tallow, resin, and palm oil, having it hot, the lye being also boiling hot; mix all together, stirring well, and the work is done.

3. Hard Soap, with Lard.—Sal-soda and lard, of each, 6 lbs.; stone lime, 3 lbs.; soft water, 4 gals. Dissolve the lime and soda in the water, by boiling, stirring, settling and pouring off; then return to the kettle (brass or copper) and add the lard and boil until it becomes soap; then pour into a dish or moulds, and when cold, cut it into bars and let it dry.

This recipe was obtained by finding an overcoat with it in the pocket, and also a piece of the soap; the man kept it with him, as it irritated his salt-rheum so much less than other soaps. It has proved valuable for washing generally, and also for shaving purposes. It would be better than half the toilet soaps sold, if an ounce or two of sassafras oil was stirred into this amount; or a little of the soap might be put in a separate dish, putting in a little of the oil, to correspond with the quantity of soap.

4. White Hard Soap, with Tallow.—Fresh slacked lime, sal-soda, and tallow, of each, 2 lbs.; dissolve the soda in 1 gal. boiling soft water; now mix in the lime, stirring occasionally for a few hours; after which let it settle, pouring off the clear liquor and boiling the tallow therein until it is all dissolved: cool it in a flat box or pan, and cut into bars, or cakes, as preferred.

It can be flavored with sassafras oil as the last, by stirring it in

when cool. It can be colored also, if desired, as mentioned in the "Variegated Toilet Soap."

When any form of soda is used in making soap, it is necessary to use lime to give it causticity; or, in other words, to make it caustic; which gives it much greater power upon the grease, by removing the carbonic acid; hence the benefit of putting lime in the bottom of a leach when making soap from common ashes.

5. Transparent Soap.—Take nice yellow bar soap, 6 lbs.; cut it thin and put into a brass, tin, or copper kettle, with alcohol, ⅛ gal.; heating gradually over a slow fire, stirring until all is dissolved; then add an ounce of sassafras essence, and stir until well mixed; now pour it into pans about 1¼ inches deep, and when cold, cut into square bars, the length or width of the pan, as desired.

This gives you a nice toilet soap for a trifling expense, and when fully dry it is very transparent.

6. One Hundred Pounds of Good Soap for $1.30.—Take potash, 6 lbs., 75 cts.; lard, 4 lbs., 50 cts.; resin, ¼ lb., 5 cts.

Beat up the resin, mix all together, and set aside for five days; then put the whole into a ten-gallon cask of warm water, and stir twice a day for ten days; at the expiration of which time you will have one hundred pounds of excellent soap.

7. Chemical Soft Soap.—J. Hamilton, an English gentleman, and proprietor of the Eagle Hotel, Aurora, Indiana, makes his soap for house use as follows:

Take grease, 8 lbs.; caustic soda, 8 lbs.; sal-soda, 1 lb.; melt the grease in a kettle, melt the sodas in soft water, 4 gals., and pour all into a barrel holding 40 gals., and fill up with soft water, and the labor is done.

When the caustic soda cannot be obtained of soap-makers, you will make it by taking soda-ash and fresh slacked lime, of each eight pounds; dissolving them in the water with the sal-soda, and when settled, pouring off the clear liquid, as in the "White Hard Soap with Tallow."

8. Soap without Heat.—Mr. Tomlinson, writing to Judge Buel, says:

"My wife has no trouble about soap. The grease is put into a cask, and strong lye added. During the year, as the fat increases, more lye is stirred in; and occasionally stirred with a stick that is kept in it. By the time the cask is full, the soap is made for use."

There is no mistake about this manner of making soap. The only object of boiling is to increase the strength of *weak* lye and hasten the process.

9. Windsor, or Toilet Soap.—Cut some new white bar soap into thin slices, melt it over a slow fire, and scent it with oil of caraway; when perfectly dissolved, pour it into a mould and let it remain a week, then cut it into such sized squares as you may require.

10. Variegated Toilet Soap.—Soft water, 3 qts.; nice white bar soap, 3 lbs.; sal-soda, 2 ozs.; Chinese vermilion, and Chinese blue, of each, as much as will lie on a five-cent piece; oil of sassafras, ½ oz.

Shave the soap fine, and put it into the water as it begins to boil; when dissolved, set it from the fire; take out a cup of the soap and stir in the vermilion; take out another cup of the soap and stir in the blue; then pour in one of the cups and give two or three turns only with the stirring stick; then put in the other in the same way; and finally pour into a suitable box; and when cold it can be cut into bars; or it can be run in moulds, if desired. It will become hard in a short time, giving

most excellent satisfaction. If stirred thoroughly, after putting in the colors, it would be all of a mixed color; but giving it only two or three turns, leaves it in streaks, most beautiful.

Soap manufacturers generally use soda, in preference to wood-ashes, because less troublesome; and to make it more caustic, or in other words, to absorb the carbonic acid gas, they must put about pound for pound of recently slacked lime with soda-ash, or sal-soda; dissolving by heat or stirring, or by both, using sufficient water to make the lye support a fresh-laid egg, and drawing it off clear of the lime sediment. Thirteen hundred pounds of the tallow, or thereabouts, with this lye, make one ton of white soap; and yellow soap, by using ten hundred of tallow and three hundred and fifty of yellow resin, for each ton, boiling with the lye until they unite; then pouring into frames, made to fit one upon another, to cool and harden; finally taking off one frame at a time, and with a wire, having a handle at each end to draw it with, cut into slices, then bats, and cording up, as wood, to dry. If wood-ashes are used, plenty of lime must be put into the bottom of the leach.

TALLOW CANDLES—For Summer Use.—Most tallow, in summer, is more or less soft, and often quite yellow. To avoid both:

Take your tallow and put a little bees-wax with it, especially if your bees-wax is dark and not fit to sell; put into a suitable kettle, adding *weak* lye, and gently boil, an hour or two each day for 2 days, stirring and skimming well; each morning cutting it out and scraping off the bottom which is soft, adding fresh lye (be sure it is not too strong), 1, or 2, or 3 gals., according to the amount of tallow. The third morning use water in which alum and saltpetre are dissolved, at the rate of 1 lb. each for 30 lbs. of tallow; then simmer, stir, and skim again; let cool, and you can take it off the water for use.

They may be dipped or run in moulds. For dipping, allow two pounds for each dozen candles.

Saltpetre and alum are said to harden *lard* for candles; but it can be placed among the humbugs of the day. But I will give you a plan which is a little shorter for hardening tallow; either will work well—take your choice:

2. Tallow—To Cleanse and Bleach.—Dissolve alum, 5 lbs., in water, 10 gals., by boiling; and when it is all dissolved, add tallow, 20 lbs.; continue the boiling for an hour, constantly stirring and skimming; when sufficiently cool to allow it, strain through thick muslin; then set aside to harden; when taken from the water, lay it by for a short time to drip.

Dip or mould, as you please, not expecting them to "run" in summer nor "crack" in winter. They will also burn very brilliantly, at which, however, you will not be surprised when you consider the amount of filth thrown off in cleansing.

FENCE POSTS—To Prevent Rotting.—A correspondent of the *American Agriculturalist* says:

"I think it would be well to call the attention of farmers to the use of coal-tar as a paint. The tar produced in coal gas-works is extensively used in England for painting fences, out-buildings, etc., and is being introduced in this country also. It *never* alters by exposure to the weather; and one or two good coats will last for many years. It is the cheapest and best black paint that can be used. Our buildings are painted with it; all our apparatus also; and even the wrought-iron pipe we place in the ground is coated with it. I think if its advantages were fully known, it would be generally used throughout the United

States. The Government soak the brick used in building the fort at Throg's Neck in this tar, which renders them impervious to water; and posts painted with it are protected from rot, when in the ground, as effectually as if they had been charred."

I know this tar is much more effectual than charring, and is not one-tenth the trouble. There are posts near this city which have now been set over ten years, and yet no appearance of decay. The coating is still perfect also.

The only objection to it as a paint above ground, is its offensive smell, from the heat of the sun.

No persons should allow themselves to set a single post without its application, and farmers who are putting out much fence, cannot possibly be so short-sighted as to neglect it after it once comes to their notice.

It is doubly important to railroad companies from the fact that these roads run through the most level portions of country, and consequently the most swampy and wet, therefore fence posts are the more liable to rot. The mode of application is as follows:

Have a large iron kettle so arranged that you can make and keep the tar hot, then, after having removed the bark, if any, set the end of the post into the tar; and if the tar is not sufficiently deep to take the post into it as far as you wish to tar it, have a swab of cloth tied upon a broom-handle or other stick, and swab it up at least 6 to 10 inches above the ground-line when the post is set; then lift up the post, letting it drip a moment, and lay it away upon rails or poles placed for that purpose, not allowing them to touch each other until dry.

Two men will tar about five hundred posts in one day; and one barrel of tar will be sufficient for that number. Who, then, will hesitate to adopt its use, especially when the tar can be purchased at the gas-works for about two dollars per barrel?

MEATS, TO PRESERVE.—Beef: To Pickle for Long Keeping.—First, thoroughly rub salt into it and let it remain in bulk for 24 hours, to draw off the blood. Second, take it up, letting it drain, and pack as desired. Third, have ready a pickle prepared as follows:—For every 100 lbs. of beef, use 7 lbs. of salt; saltpetre and cayenne pepper, of each, 1 oz.; molasses, 1 qt., and soft water, 8 gals.; boil and skim well; and when cool, pour it over the beef.

This amount will cover one hundred pounds, if it has been properly packed. I have found persons who use nothing but salt with the water, and putting on hot, scalding again at the end of three weeks, and putting on hot again. The only object claimed for putting the brine on the meat while hot, is, that it hardens the surface, which retains the juices, instead of drawing them off.

2. The Michigan Farmer's Method.—Is: "For each 100 lbs of beef, use salt, 5 lbs.; saltpetre, ¼ oz.; brown sugar, 1 lb.; dissolve in sufficient water to cover the meat—two weeks after, take up, drain—throw away the brine—make more the same as first—it will keep the season through. When to be boiled for eating, put into boiling water—for soups, into cold water."

I claim a preference for the first plan, of drawing off the blood before pickling, as saving labor; and that the cayenne and saltpetre improve the flavor and help preserve; and that boiling and skimming cleanse the brine very much. Of late years I pursue the following:

3. Beef—To Pickle for Winter or Present Use, and for Drying.—Cut your beef into sizable pieces, sprinkle a little salt upon the bottom of the barrel only, then pack your beef without salt amongst it,

and when packed pour over it a brine made by dissolving 6 lbs. of salt for each 100 lbs. of beef, in just sufficient cold water to handsomely cover it.

You will find that you can cut and fry as nice as fresh, for a long time; just right for boiling, also; and when it gets a little too salt for frying, you can freshen it nearly as nicely as pork, for frying purposes, or you can boil it, then make a stew for breakfast, very nice indeed. By the other plan it soon becomes too salt for eating, and the juices are drawn off by the salt. In three weeks, perhaps a little less, such pieces as are designed for drying will be ready to hang up, by soaking over night to remove the salt from the outside. Do not be afraid of this way, for it is very nice for winter and drying purposes; but if any is left until warm weather, throw away this brine, put salt amongst what is left, and cover with the first brine, and all is right for long keeping.

4. Mutton Hams—To Pickle for Drying.—First take weak brine and put the hams into it for 2 days, then pour off and apply the following, and let it remain on from 2 to 3 weeks, according to size:—For each 100 lbs., take salt, 6 lbs.; saltpetre, 1 oz.; saleratus, 2 ozs.; molasses, 1 pt; water, 6 gals., will cover these if closely packed.

The saleratus keeps the mutton from becoming too hard.

5. Curing, Smoking, and Keeping Hams.—ROSE COTTAGE, MUNCIE, IND., Nov. 26th, 1859: I noticed an article in the *Gazette*, of yesterday, headed as above, from the pen of Mr Alexander Brooks, taken from the *Rural New Yorker*, and as I have some useful experience in that line, I desire to suggest my plan for curing and keeping:

To a cask of hams, say from 25 to 30, after having packed them closely and sprinkled them slightly with salt, I let them lie thus for 3 days; then make a brine sufficient to cover them, by putting salt into clear water, making it strong enough to bear up a sound egg or potato. I then add ½ lb. of saltpetre, and a gallon of molasses; let them lie in the brine for 6 weeks—they are then exactly right. I then take them up and let them drain; then while damp, rub the flesh side and the end of the leg with finely pulverized black, red, or cayenne pepper; let it be as fine as dust, and dust every part of the flesh side, then hang them up and smoke. You may leave them hanging in the smoke-house or other cool place where the rats cannot reach them, as they are perfectly safe from all insects, and will be a dish fit for a prince, or an American citizen, which is better.

Respectfully yours,

THOS. J. SAMPLE.

I find that Mr. Sample uses twice as much saltpetre and double the time, for my eating, but perhaps not for general market.

If grocers will take this plan for preparing their hams and shoulders, there will be no need of sacking; and such as they buy in during the summer should receive a coat of pepper immediately, to prevent annoyance from flies.

6. T. E. Hamilton's Maryland Method.—The hams of Maryland and Virginia have long enjoyed a wide celebrity. At one of the exhibitions of the Maryland State Agricultural Society, four premiums were awarded for hams. The one which took the first premium, was cured by Mr. T. E. Hamilton, from the following recipe:

"To every 100 lbs. take best coarse salt, 8 lbs.; saltpetre, 2 ozs.; brown sugar, 2 lbs.; potash, 1¼ ozs.; and water, 4 gals. Mix the above and pour the brine over the meat, after it has lain in the tub for some 2 days. Let the hams remain 6 weeks in the brine, and then dry sev-

eral days before smoking. I have generally had the meat rubbed with fine salt, when it is packed down."

The meat should be perfectly cool before packing. The potash keeps it from drying up and becoming hard.

7. Pork—To have Fresh from Winter Killing, for Summer Frying.—Take pork when killed in the early part of the winter, and let it lie in pickle about a week or 10 days, or until just sufficiently salted to be palatable; then slice it up and fry it about half or two-thirds as much as you would for present eating; now lay it away in its own grease, in jars properly covered, in a cool place, as you would lard.

When desired, in spring or summer, to have fresh pork, take out what you wish and re-fry suitable for eating, and you have it as nice as can be imagined. Try a jar of it, and know that some things can be done as well as others. It is equally applicable to hams and shoulders, and I have no doubt it will work as well upon beef, using lard sufficient to cover it. So well satisfied am I of it that I have put in beaf-steak, this spring, with my fresh ham, in frying for summer use. It works upon the principle of canning fruits to exclude the air. I put in no bone.

8. Salt Pork for Frying—Nearly Equal to Fresh.—For the benefit of those who are obliged to use considerable salt pork, the following method much improves it for frying:

Cut as many slices as may be needed; if for breakfast, the night previous, and soak till morning in a quart or two of milk and water, about one-half milk—skimmed milk, sour milk or buttermilk;—rinse till the water is clear, and then fry. It is nearly or quite as nice as fresh pork—both the fat and lean parts.

Occasionally I like to have this rolled in corn meal before frying as it makes such a nice imitation of fresh fish.

9. Fresh Meat—To Keep a Week or Two in Summer.—Farmers or others living at a distance from butchers, can keep fresh meat very nicely, for a week or two, by putting it into sour milk, or buttermilk, placing in a cool cellar. The bones or fat need not be removed.

Rinse well when used.

10. Smoked meat—To Preserve for Years, or for Sea Voyages—How often are we disappointed in our hopes of having sweet hams during the summer? After carefully curing and smoking, and sewing them up in bags, and whitewashing them; we often find that either the fly has commenced a family in our hams, or that the choice parts around the bone are tainted, and the whole spoiled.

Now this can be easily avoided, by packing them in pulverized charcoal. No matter how hot the weather, or how thick the flies; hams will keep as sweet as when packed, for years. The preservative quality of charcoal will keep them till charcoal decays; or sufficiently long to have accompanied Cook three times around the world.

11. The Rural New Yorker's Method.—It says: "In the Spring, cut the smoked ham in slices, fry till partly done, pack in a stone jar alternate layers of ham and gravy. If the ham should be very lean use lard for gravy. Be sure and fry the ham in the lard, so that it will be well seasoned. When wanted for use, take up, finish frying, and it is ready for the table."

The only trouble is, that we can't keep it half long enough, it is so good and handy.

12. The New England Farmer's "Saving his Bacon."—About couple of years ago, we were entertained, at the house of a friend,

with a dinner of eggs and bacon. We complimented our host on the superior quality of his bacon; and were curious to inquire the way to like success in the preparation of a dainty article of diet, though one that is better fitted for the palate of an epicure, than for the stomach of a dyspeptic. To our surprise we were informed that that portion of our meal was cooked eight months before.

Upon asking for an explanation, he stated it was his practice to slice and fry his bacon immediately on its being cured, and then pack it in its own fat. When occasion came for using it, the slices, slightly re-fried, have all the freshness and flavor of new bacon just prepared. By this precaution, our friend always succeeded in "Saving *his* bacon," fresh and sweet through the hottest weather.—*New England Farmer.*

I have no doubt but what it will do as well to pack meats unfried in this way, in tubs and barrels as in jars; but I rather prefer covered jars, putting a couple of thicknesses of cloth over the jar before putting on the cover; placed in a cool cellar.

I also find it necessary to put in lard occasionally as you are frying, as there is not generally enough brought out by frying to fill the crevices between the slices, which must be filled.

CANNING FRUITS—Peaches and Pears.—After paring and coring, put amongst them sufficient sugar to make them palatable for present eating,—about 3 to 4 lbs. only for each bushel; let them stand a while to dissolve the sugar, not using any water; then heat to a boil, and continue the boiling, with care, from 20 to 30 minutes, or sufficiently long to heat through, which expels the air.

Have ready a kettle of hot water; into which dip the can long enough to heat it; then fill in the fruit while hot, corking it immediately, and dip the end of the cork into the "Cement for Canning Fruits." When cold it is best to dip the second time to make sure that no air holes are left which would spoil the fruit. All canned fruits are to be kept in a very cool cellar.

We have yesterday, and to-day, been eating peaches put up in this way, two years ago, which were very nice indeed. See "Peaches, To Peel."

Berries, Plums, Cherries, etc.—Raspberries, blackberries, whortleberries, currants, cherries, and plums, need not be boiled over 10 to 15 minutes; using sugar to make palatable, in all cases, as it must be put in some time, and it helps to preserve the fruit.

They require the same care in heating cans, etc., as above, for peaches.

3. Strawberries.—For strawberries, put sugar ½ lb. for each lb. of berries, and proceed as for berries above.

Strawberries are so juicy, and have such a tendency to fermentation, that it is almost impossible to keep them. I have found it absolutely so, until I adopted the plan of using the amount of sugar above named; if others can do with less, they can benefit the public by telling me how they do it.

5. Tomatoes.—For tomatoes, scald and peel them as for other cooking; then scald, or rather boil for about 15 minutes only, and can as above.

Or what I think best is to use a little salt, and put them into half-gallon jugs; for we want them in too great quantities to stop on a few glass jars, such as we use for other fruits; as for tin cans, I never use them; if you do use tin cans for tomatoes it will not do to use salt with them, as it has a tendency to cause rust.

6. Cement for Canning Fruits.—Resin, 1 lb.; lard, tallow and bees-wax, of each, 1 oz.

Melt and stir together; and have it hot, ready to dip into when canning.

7. Rural New Yorker's Method.—The editor says:

From four year's experience with, not only strawberries, but peaches, cherries, raspberries, pine-apples, etc., without losing a single jar, the flavor being also perfect: Use only self-sealing *glass jars*. Put into a procelain preserving kettle, enough to fill two quart jars; sprinkle on sugar, ¼ lb.; place over a slow fire and heat through, *not cooked*. While the fruit is heating, keep the jars filled with hot water. Fill up to the brim, and seal immediately.

As it cools a vacuum is formed which prevents bursting. In this way, every kind of fruit will retain its flavor. Sometimes a thick leathery mould forms on the top—if so, all the better.

CATCHUP—Tomato Catchup.—Take perfectly ripe tomatoes, ½ bushel; wash them clean and break to pieces; then put over the fire and let them come to a boil, and remove from the fire; when they are sufficiently cool to allow your hands in them, rub through a wire sieve; and to what goes through, add salt, one tea-cup ; allspice and cloves of each ground, one tea-cup; best vinegar, 1 qt. Put onto the fire again and cook one hour, stirring with great care to avoid burning. Bottle and seal for use. If too thick when used, put in a little vinegar. If they were very juicy they may need boiling over an hour.

This recipe is from Mrs. Hardy, of the American Hotel, Dresden, O., and is decidedly the best catchup which I have ever tasted; the only fault I ever heard attributed to it was, "I wish we had made more of it." "We have not got half enough of it," etc. But there are those who cannot use tomatoes in any shape; such persons will, undoubtedly, like the following:

2. Currant Catchup.—Nice fully ripe currants, 4 lbs.; sugar, 1¼ lbs.; cinnamon, ground, 1 table-spoon; salt, with ground cloves and pepper, of each, 1 tea-spoon, vinegar, 1 pt.

Stew the currants and sugar until quite thick; then add the other ingredients, and bottle for use.

PRESERVES—Tomato Preserves.—As some persons will have preserves, I give them the plan of making the most healthy of any in use:

Take ripe, scalded and peeled tomatoes, 13 lbs.; nice, scalded hot molasses, 1 gal.; pour the molasses upon them and let stand 12 hours; then boil until they are properly cooked; now skim out the tomatoes, but continue boiling the syrup until quite thick; then pour again upon the tomatoes and iput away as other preserves. A table-spoon of ginger tied up in a bt of cloth and boiled in them, gives a nice flavor; or the extracts can be used; or lemon peel, as preferred—if sugar is used, pound for pound is the amount.

But I prefer to put them or any other fruit, into jugs, cans, or bottles, which retains the natural flavor and does not injure the stomach, which all preserves do, to a greater or less extent. Yet I give you another, because it does so nicely in place of citron, in cakes.

2. Preserved Water-Melon in Place of Citron, for Cakes.—The harder part of water-melon, next the skin, made into preserves with sugar, equal weights; cooking down the syrup rather more than for common use, causes it to granulate, like citron, which is kept for sale.

This chopped fine, like citron, makes an excellent substitute for that article; and for very much less cost. Call in the neighbors to help eat about a dozen good sized melons, and you have outsides enough for the experiment; and if the Doctor is near he will help without a fee. They are nice, also, in mince-pies, in place of raisins.

CURRANTS—To Dry With Sugar.—Take fully ripe currants, stemmed, 5 lbs.; sugar, 1 lb.; put into a brass kettle, stirring at first, then as the currants boil up to the top, skim them off; boil down the juicy syrup until quite thick and pour it over the currants, mixing well; then place on suitable dishes, and dry them by placing in a low box over which you can place musqueto-bar, to keep away flies.

When properly dried, put in jars, and tie paper over them. Put cold water upon them and stew as other fruit for eating or pie-making, adding more sugar if desired.

TIN-WARE—To Mend By the Heat of a Candle.—Take a vial about two-thirds full of muriatic acid, and put into it little bits of sheet zinc, as long as it dissolves them; then put in a crumb of sal-ammoniac and fill up with water, and it is ready to use.

With the cork of the vial, wet the place to be mended, with the preparation; then put a pice of sheet zinc over the hole and hold a lighted candle or spirit lamp under the place, which melts the solder on the tin and causes the zinc to adhere without further trouble. Wet the zinc also with the solution. Or a little solder may be put on in place of zinc, or with the zinc.

WATER FILTER—Home Made.—Rain water is much healthier than hard water as a beverage; and the following will be found an easy and cheap way to fit it for drinking purposes.

Have an oak tub made, holding from half, to a barrel, according to the amount of water needed in the family; let it stand on end with a faucet near the bottom; or, I prefer a hole through the bottom, near the front side, with a tube in it which prevents the water from rotting the outside of the tub; then put clean pebbles 3 or 4 inches thick over the bottom of the tub, now have charcoal pulverized to the size of small peas (that made from hard maple is best) and put in half a bushel or so at a time; pound it down quite firmly, then put in more and pound again until the tub is filled to within 8 inches of the top; and again put on two inches more of pebbles; then put a piece of clean white flannel over the whole top as a strainer.

The flannel can be washed occasionally, to remove the impurities collected from the water, and it might be well to put a flannel between the pebbles and flannel at the bottom, also. When the charcoal becomes foul, it can be renewed as before, but will work a whole season without renewing. Put on your water freely until it becomes clear; when you will be as well satisfied as you would be if it run through a *patent* filter, costing six times as much as this.

A large jar to hold the filtered water can be set in an ice box if preferred; or an occasional piece of ice can be put in the water; but if the filter is set in the cellar, as it should be, the water will be sufficiently cool for health. This makes a good cider filter, also, first straining the cider through cotton to free it from the coarsest pomace.

TIRE—To Keep on the Wheel.—A correspondent of the *Southern Planter* says: "I ironed a wagon some years ago for my own use, and before putting on the tires I filled the felloes with linseed-oil; and the tires have worn out, and were never loose. I ironed a buggy for my own use, seven years ago, and the tires are now as tight as when put on. My method of filling the felloes with the oil is as follows:

I use a long cast iron oil-heater, made for the purpose: the oil is brought to a boiling heat, the wheel is placed on a stick, so as to hang in the oil, each felloe an hour, for a common-sized felloe. The timber should be dry, as green timber will not take oil. Care should be taken that the oil be not made hotter than a boiling heat, in order that the timber be not burnt. Timber filled with oil is not susceptable to water, and is much more durable."

I was amused sometime ago when I told a blacksmith how to keep tires tight on wheels, by his telling me it was a profitable business to tighten tires; and the wagon maker will say it is profitable for him to make and repair wheels—but what will the farmer who supports the wheel-right and the blacksmith say? The greatest good to the greatest number, is my motto.

WEEDS—To Destroy in Walks.—The following method to destroy weeds is pursued at the mint in Paris, with good effect.

Water, 10 gals.; stone lime, 20 lbs.; flour of sulphur, 2 lbs. Boil in an iron kettle; after settling, the clear part is to be poured off and sprinkled, freely, upon the weedy walks.

Care must be taken, for it will destroy weeds; and as certainly destroy edgings and border flowers, if sprinkled on them.

CEMENTS—Cement for China, etc., which stands Fire and Water.—With a small camel's-hair brush, rub the broken edges with a little carriage oil-varnish.

If neatly put together, the fracture will hardly be perceptible, and when thoroughly dry, will stand both fire and water.

2. Russian Cement.—Much is said about cements; but there is probably nothing so white and clear, and certainly nothing better than the following:

Russian isinglass dissolved in pure soft water, snow water is best; —for it takes 12 hours to soften it by soaking in pure soft water, then considerable heat to dissolve it, after which it is applicable to statuary, china, glass, alabaster, etc., etc.

In all cements the pieces must be secured until dry. It is easy to reason that if twelve to fifteen hours are required to soften this isinglass, that no dish-washing will ever effect it. You may judge from the price whether you get the Russian, for thirty-seven cents per ounce, is as low as the genuine article can be purchased in small quantities, whilst the common, bear a price of only ten to twelve cents, and even less.

3. Cement, Cheap and Valuable.—A durable cement is made by burning oyster-shells and pulverizing the lime from them very fine; then mixing it with white of egg to a thick paste and applying it to the china or glass, and securing the pieces together until dry.

When it is dry, it takes a very long soaking for to become soft again. I have lifted thirty pounds by the stem of a wine-glass which had been broken, and mended with this cement. Common lime will do, but it is not so good; either should be fresh burned, and only mix what is needed, for when once dry you cannot soften it.

4. Cement—Water-Proof, for Cloth or Belting.—Take ale, 1 pt.; best Russian isinglass, 2 ozs.; put them into a common glue kettle and boil until the isinglass is dissolved; then add 4 ozs. of the best common glue, and dissolve it with the other; then slowly add 1½ ozs. of boiled linseed oil, stirring all the time while adding, and until well mixed. When cold it will resemble India-rubber. When you wish to use this, dissolve what you need in a sufficient quantity of ale, to have the consistence of thick glue. It is applicable for earthenware, china, glass or

leather; for harness; bands for machinery; cloth belts for cracker machines for bakers, etc., etc. If for leather, shave off as if for sewing, apply the cement with a brush while *hot*, laying a weight to keep each joint firmly for 6 to 10 hours, or over night.

This cement will supersede "Spaulding's Prepared Glue," and all the white cement you can scare up, if you use good articles to make it of,—not less than thirty or forty cents a pound for common glue, and three shillings per ounce for the Russian isinglass, but the expense of this will cause it only to be used when dampness is to be contended with.

If you have not a glue kettle take an oyster can and punch some holes through the top of it putting in a string to suspend it on a stick in a common kettle of boiling water, and keep it boiling in that way.

5. Cement, or Furniture Glue, for House Use.—To mend marble, wood, glass, china and ornamental ware—take water, 1 gal.; nice glue, 3 lbs.; white lead, 4 ozs.; whisky, 3 qts.

Mix by dissolving the glue in the water; remove from the fire and stir in the white lead, then add the whisky, which keeps it fluid, except in the coldest weather. Warm and stir it up when applied.

6. White Cement.—Take white (fish) glue, 1 lb. 10 ozs.; dry white lead, 6 ozs.; soft water, 3 pts.; alcohol, 1 pt.

Dissolve the glue by putting it into a tin kettle, or dish, containing the water, and set this dish into a kettle of water to prevent the glue from being burned; when the glue is all dissolved, put in the lead and stir and boil until all is thoroughly mixed; remove from the fire, and when cool enough to bottle, add the alcohol, and bottle while it is yet warm, keeping it corked. This last recipe has sold about the country for from twenty-five cents to five dollars and one man gave a horse for it.

7. German Cement.—Two measures of litharge, and one each of unslacked lime and flint glass; each to be pulverized separately before mixing; then to use it, wet it up with old drying-oil.

The Germans use it for glass and china ware only. Water hardens it instead of softening.

8. Scrap-Book Paste, or Cement.—A piece of common glue, 2 square inches; dissolve it in water, adding as much pulverized alum, in weight, as of the glue; now mix flour ½ tea-spoon in a little water; stir it in and boil. When nearly cool stir in oil of lavender, two teaspoons.

This should make a pint of paste, which will keep a long time if tightly covered when not in use.

Cement—Preventing Leaks about Chimneys, etc.—Dry sand, 1 pt; ashes, 2 pts.; clay dried and pulverized, 3 pts,; all to be pulverized and mixed into a paste with linseed-oil.

Apply it while soft, as desired, and when it becomes hard, water will have no effect upon it. It may be used for walks, and I think it would do well in cisterns, and on roofs, etc.

MAGIC PAPER—Used to Transfer Figures in Embroidery or Impressions of Leaves, for Herbariums.—Take lard oil, or sweet oil, mixed to the consistence of cream, with either of the following paints, the color of which is desired: Prussian blue, lamp black Venitian red or chrome green, either of which should be rubbed with a knife, on a plate or stone until smooth. Use rather thin, but firm paper; put on with a sponge and wipe off as dry as convenient; then lay them between uncolored paper or between newspapers, and press by laying books or some other flat substance upon them, until the surplus oil is absorbed, when it is ready for use.

Directions.—For taking off paterns of embroidery, place a piece of this paper over the embroidery to prevent soiling; then lay on the

magic paper, and put on the cloth you wish to take the copy on, to embroider; pin fast, and rub over with a spoon handle; and every part of the raised figure will show upon the plain cloth. To take impressions of leaves on paper place the leaf between two sheets of this paper, and rub over it hard, then take the leaf out and place it between two sheets of white paper; rub again, and you will have a beautiful impression of both sides of the leaf or flower. Persons traveling without pen or ink, can write with a sharp stick, placing a sheet of this paper over a sheet of white paper.

RAT DESTROYERS—Rat Exterminator.—Flour, 3 lbs.; water only sufficient to make it into a thick paste; then dissolve, phosphorus, 1 oz., in butter, 1½ oz. by heat. Mix.

This you will leave, thickly spread on bread, where rats can get at it; or make into balls, which is preferable, covered or rolled with sugar. If it is desired to sell this article and you wish to color to hide its composition, work into it pulverized tumeric, 2 ozs. Or,

2. Take warm water, 1 qt.; lard 2 lbs.; phosphorus, 1 oz. Mix, and thicken with flour.

It is found best to make only in small quantities, as the phosphorus loses its power by exposure. Some will object to killing rats about the house; but I had rather *smell* their dead carcasses than taste their tail-prints, left on everything possible for them to get at, or suffer loss from their *tooth*-prints on all things possible for them to devour or destroy.

3. Death for the Old Sly Rat.—Some rats get so cunning that it is almost impossible to overcome their shrewdness.

Then get a few grains of strychnine, having a little fresh lean meat boiled; cut it into small bits by using a fork to hold it, for if held by the fingers they will smell them and not eat it;—cutting with a sharp pen-knife; then cut a little hole into the bits, and put in a little of the strychnine, and close up the meat together again.

Put these on a plate where they frequent, but not near their holes, laying a piece of paper over the meat; when this is eaten put more, for three or four days, and you are soon done with the wisest of them.

4. Rats—To Drive Away Alive.—If you choose to drive them away alive, take potash pulverizd, and put quite plenty of it into all their holes about the house. If the potash is pulverized and left in the air, it becomes pasty; then it can be daubed on the boards or planks, where they come through into rooms.

They will sooner leave, than be obliged to have a continual re-application of this "Doctor Stuff," every time they go through their holes. See "Potash to make."

5. Scotch snuff, or pulverized cayenne pepper, mixed together, or separate; if freely put into their burrowing-holes, will certainly send them off, at a sneezing pace.

6. Rat Poison—From Sir Humphrey Davy.—A tasteless, odorless and infallible rat poison, he says, is made as follows:

"Mix carbonate of barytes, 2 ozs., with grease 1 lb."

It produces great thirst, consequently water must be set by it, for death takes place immediately after drinking, not giving them time to go back to their holes. I obtained this at such a late day, that I have not had an opportunity of testing it. Be sure no other animal can get it, except rats and mice; for it is a most deadly poison. Should this be found as effectual as recommended, it will prove just the thing for rat-killing, as they can be gathered up and carried away, thus avoiding the stench arising from their dead carcasses.

FISH –Art of Catching.—Mix the juice of lovage or smellage, with any kind of bait, or a few drops of the oil of rhodium. India cockles, so, (Cocculus Indicus,) is sometimes mixed with flour dough and rolled on the surface of still water. This intoxicates the fish and makes them turn up on top of the water. Mullein seed, pulverized, and used in the place of India cockle is about equal to that article

They may be eaten without fear, but this will destroy many fish. Oil of rhodium is the best plan.

"It is generally supposed," says Mr. R. I. Pell, "that fish are not possessed of the sense of smell. From the following experiments I am convinced they are: I placed a hook, well baited with an angle-worm, enticingly before a perch weighing one and a half pounds; he did not take the least notice of it. It was withdrawn, and a drop of rhodium brought in contact with it, when it was dropped very carefully several feet behind him; he immediately turned and seized the bait. This experiment was several times repeated, with like success. It has been denied that fish have the sense of hearing. I find many varieties very sensitive to noise, and by numerous experiments am convinced that their sense of hearing is acute."

STRAW AND CHIP HATS—To Varnish Black.—Best alcohol, 4 ozs.; pulverized black sealing-wax, 1 oz; put them into a vial, and put the vial into a warm place, stirring or shaking occasionally, until the wax is dissolved; apply it when warm by means of a soft brush, before the fire or in the sun.

It gives stiffness to old straw hats or bonnets, makes a beautiful gloss, and resists wet; if anything else is required, just apply it to small baskets also, and see how nicely they will look.

2. STRAW BONNETS—To Color a Beautiful Slate.—First soak the bonnet in rather strong warm suds for fifteen minutes, this is to remove sizing or stiffening; then rinse in warm water to get out the soap; now scald cudbear, 1 oz., in sufficient water to cover the hat or bonnet—work the bonnet in this dye at 180 degrees of heat, until you get a light purple; now have a bucket of cold water blued with the extract of indigo, about ½ oz., and work or stir the bonnet in this, until the tint pleases.

Dry, then rinse out with cold water and dry again, in the shade. If you get the purple too deep in shade, the final slate will be too dark. See "Extract of Indigo or Chemic."

STUCCO PLASTERING—For Brick and Gravel Houses.—First make up as much mortar as you need for the job, with good common lime; using only ¾ or four-fifths at most, as much lime as needed for common work—the other fourth or fifth is to be water lime; and not to be put in only as used. The sand must be coarse, and free from loam or dirt.

To prepare the white and colored washes, run off common lime enough with hot water, to make a white-wash to go over the whole job. This white-wash is to be colored the tint desired for the work. Be sure to make color-wash enough at one time, or you will find it hard to get the shades alike; saving a little of the whitewash without color, to pencil the seams, and also for specking, as mentioned below. The colors used are lamp-black, Spanish-brown, or Venetian-red, as preferred, and these are cut or dissolved in whisky; then putting into the white-wash to suit.

When these washes are all prepared, wet up as much of the mortar as can be put on in 20 to 40 minutes, and mix in the fourth or fifth of the cemennt, and put on as fast as possible; first wetting the wall very

wet with water. Some cement will set in 20 and some in 40 to 50 minutes. When you see the time necessary for the kind you are using, act accordingly, and only mix the cement into as much mortar as your help will put on before it sets; beginning at the top of the wall with your scaffolding and working down, which prevents too much specking from the colors. Have a man to follow right after with a float, keeping the stucco very wet while floating down level and smooth; and the longer it is floated and wet the better will be the job. Even after it is floated down well, keep a man wetting it with a brush until you get the whole line on, around the house, as the water-lime must be kept quite wet for some considerable time, to set properly. Heed this caution, and if water never gets in behind the plastering from bad cornice or leaky roofs, it will never peel off. When this line of scaffolding is plastered, take out enough of the color-wash, running it through a sieve, and go over the plastering; lamp-black alone gives it a bluish slate color; if a little of the brown is added with the black, it will be a little reddish, and if the red is used without the brown, it will be quite red. I prefer sufficient of the black only to make a gray stone color A brown, however, looks exceedingly well. If you choose, you can make one-half of the color-wash darker than the other—having laid it off into blocks resembling stone, by means of a straight-edge, and a piece of board about half an inch thick, paint every other block with the darker wash to represent diffierent shades of stone. Some of our best buildings are done in this way, and look well.

Then to give it a granite appearance, take a small paint brush and dip it into the white wash, saved for this purpose; strike it across a hammer-handle so as to throw the specks from the brush upon the wall, then the same with black and red. Pencil the seams with the white wash, which gives it the appearance of mortar, as in real stone work.

Now you are ready to move down the scaffold and go over the same thing as before. After the colors have been dissolved with spirits, they can be reduced with water, or what is better for them and the color-wash also, is skimmed-milk; and where milk is plenty, it ought to be used in place of water, for whitewash or color-washes, as it helps to resist the weather, and prevents the colors from fading—see "Paint, to make without Lead or Oil," which gives you the philosophy of using milk. Speck quite freely with the white, then about half as much with the black, and then rather free again with the red. The proportion of lime, probably, should not exceed one, to six or seven of sand. Our University buildings, represented in the frontispiece except the Laboratory, and Law-building, which have been more recently put up, are finished with it, also whole blocks in the business part of the city.

Prof. Douglass' house is probably the prettiest color of any in the city—an imitation of "Free-stone," made with lamp-black, yellow ochre, and a larger proportion of Spanish brown. But all will have a preference for some special color; then, with a little ingenuity and patience, nearly any colored stone can be imitated.

GRAVEL HOUSES—To Make—Proportions of Lime, Sand, and Gravel.—It has become quite common to put up gravel houses; and many persons are at a great loss to know what proportion of materials to use.—Various proportions have been proposed; but from the fact that the philosophy was not explained, no real light was given upon the subject.

All that is required to know, is that sand and lime are to be used in proportion to the size of the gravel,—say for 15 bushels of clean

gravel, from the size of peas up to that of hen's eggs, it will take about 3 bushels of clean, sharp sand and 1 of lime to fill the crevices without swelling the bulk of the gravel. If the gravel is coarse, up to 5 bushels of sand may be required, but the lime will not need to be increased but very little, if any. Then the philosophy of the thing is this—about 1 to 1¼ bushels of lime to 15 bushels of gravel, and just sand enough to fill the crevices without increasing the bulk as above mentioned.

If the gravel is free of dirt, the sand also clean, and the weather dry, the walls can be raised 1 foot each day, if you have help to do that amount of labor.

Some prefer to make the gravel and sand into mortar and press it into bricks; then lay into walls, but the wall must be stronger if laid up solid, in board frames, made to raise up as required.

Many persons argue for the eight-square or octagon house; but I like the square form much the best, carrying up the hall and main partition walls of the same material. The eight-square house looks like an old fort, or water tank, and is very expensive to finish; costing much more than the same room with square angles; for mechanics cannot put up cornice outside, or in, in less than double the time required for making the common square mitre.

Prof. Winchell, of the University, and State Geologist, in this city, has put up one of the octagons which looks well, however, for the style of *finish* is what attracts attention, instead of the style of form.

WHITEWASH AND CHEAP PAINTS—Brilliant Stucco Whitewash—Will last on Brick or Stone, Twenty to Thirty Years.—Many have heard of the brilliant stucco whitewash on the east end of the President's house at Washington. The following is a recipe for it, as gleaned from the *National Intelligencer*, with some additional improvements learned by experiments:

Nice unslacked lime, ½ bushel; slack it with boiling water; cover it during the process, to keep in the steam. Strain the liquid through a fine sieve or strainer, and add to it salt, 1 peck; previously well dissolved in water; rice, 3 lbs.,—boiled to a thin paste, and stirred in boiling hot; Spanish whiting, ½ lb.; clean nice glue, 1 lb., which has been previously dissolved by soaking it well, and then hanging it over a slow fire, in a small kettle, immersed in a larger one filled with water. Now add hot water, 5 gals., to the mixture, stir it well, and let it stand a few days covered from the dirt.

It should be put on hot. For this purpose it can be kept in a kettle on a portable furnace. Brushes more or less small, may be used, according to the neatness of the job required. It answers as well as oil paint for brick or stone, and is much cheaper.

There is one house in our city which had this applied twelve years ago, and is yet nice and bright. It has retained its brilliancy over thirty years.

Coloring matter, dissolved in whisky, may be put in and made of any shade you like; Spanish brown stirred in will make red-pink, more or less deep, according to quantity. A delicate tinge of this is very pretty for inside walls. Finely pulverized common clay, well mixed with Spanish brown, makes reddish stone color. Yellow ochre stirred in makes yellow wash, but chrome goes further, and makes a color generally esteemed prettier. In all these cases the darkness of the shade, of course, is determined by the quantity of the coloring used. It is difficult to make rules, because tastes are different—it would be best to try experiments on a shingle and let it dry. Green must not be mixed with lime. The lime destroys the color, and the color has an

effect on the whitewash, which makes it crack and peel. When inside walls have been badly smoked, and you wish to make them a clean, clear white, it is well to squeeze indigo plentifully through a bag into the water you use, before it is stirred into the whole mixture, or blue vitriol pulverized and dissolved in boiling water and put into whitewash, gives a beautiful blue tint. If a larger quantity than five gallons be wanted, the same proportions should be observed.

2. Whitewash—Very Nice for Rooms.—Take whiting, 4 lbs.; white or common glue, 2 ozs.; stand the glue in cold water over night; mix the whiting with cold water, and heat the glue until dissolved; and pour it into the other, hot. Make of a proper consistence to apply with a common whitewash brush.

Use these proportions for a greater or less amount. In England, scarcely any other kind of whitewash is used.

A lady of Black River Falls, Wis., who had one of my books wrote to me, expressing her thankfulness for the beauty of this whitewash.

Paint—To make without Lead or Oil.—Whiting, 5 lbs.; skimmed milk, 2 qts.; fresh slacked lime, 2 ozs. Put the lime into a stone-ware vessel, pour upon it a sufficient quantity of the milk to make a mixture resembling cream; the balance of the milk is then to be added; and lastly the whiting is to be crumbled upon the surface of the fluid, in which it gradually sinks. At this period it must be well stirred in, or ground as you would other paint, and it is fit for use.

There may be added any coloring matter that suits the fancy, (see the first whitewash for mixing colors,) to be applied in the same manner as other paints, and in a few hours it will become perfectly dry. Another coat may then be added and so on until the work is done. This paint is of great tenacity, bears rubbing with a coarse cloth, has little smell, even when wet, and when dry is inodorus. The above is sufficient for 57 yards.—*Annapolis Republican.*

"We endorse the recipe. The casein or curd of the milk, by the action of the caustic-lime, becomes insoluble, and has been used, for time immemorial, as a lute for chemical experiments. It is a good, and in comparison with white lead, a durable paint."—*Moore's Rural New Yorker.*

Most of the cheap paints will require about three coats. White lead always requires two, but some people think because they get a cheap paint that one coat ought to make a good job. Two will generally do with any except white.

4. White Paint—A new Way of Manufacturing.—The following was communicated by a man who was formerly a carpenter in the U. S. Navy:

"During a cruise in the South Pacific we went into the harbor of Coquimbo; and as the ship had been out a long time, she was covered with rust from stem to stern. It was the anxious wish of the commander that she should be restored to her original colors; but on examining the store-room, it was ascertained that there was not a pound of white lead in the ship. In this emergency I bethought me of an expedient which concocted an admirable substitute, composed of the following ingredients:

"Air-slacked lime, pulverized until it was of the fineness of flour, which was then passed through a sieve. Rice boiled in a large kettle until the substance was drawn entirely out of the grain; the water, then of a plastic nature, was strained to separate the grain, etc., from the clear liquid. A tub, about the size of a half barrel, of the prepared lime and rice-water, was mixed with one gallon of linseed-oil: and

the material had so much the appearance of paint that a novice could not have told the difference

"The ship was painted outside and inboard with the above mixture (which cost next to nothing,) and never presented a finer white streak on her bends, or clearer bulwarks and berth-deck than on that occasion, and no other kind of white paint was used during the remainder of the cruise."

If this is good for ships out and inboard, it is worth trying for fences and out-work requiring a cheap white paint.

5. Black and Green Paint—Durable and Cheap, for Out-Door Work.—Any quantity of charcoal, powdered; a sufficient quantity of litharge as a dryer, to be well levigated (rubbed smooth) with linseed-oil; and when used, to be thinned with well boiled linseed-oil. The above forms a good black paint.

By adding yellow ochre, an excellent green is produced, which is preferable to the bright green, used by painters, for all garden work, as is it does not fade with the sun.

This composition was first used by Dr. Parry, of Bath, on some spouts; which, on being examined, fourteen years afterwards, were found to be as perfect as when first put up.

6. Milk Paint, for Barns—Any Color.—"Mix water lime with skim-milk, to a proper consistence to apply with a brush, and it is ready for use. It will adhere well to wood, whether rough or smooth, to brick, mortar, or stone, where oil has not been used. (in which case it cleaves to some extent,) and forms a very hard substance, as durable as the best oil paint. It is too cheap to estimate, and any one can put it on who can use a brush."—*Country Gentleman.*

Any color may be given to it, by using colors of the tinge desired, dissolving in whisky first, the adding in to suit the fancy, as in the first recipe.

If a red is preferred, mix in Venitian-red with milk, not using any lime. It looks well for fifteen years.

LIQUID, AND WATER-PROOF GLUES.—Liquid Glue.—To have a good glue always ready for use, just put a bottle two-thirds full of best common glue, and fill up the bottle with common whisky; cork it up, and set by for 3 or 4 days, and it will dissolve without the application to heat.

It will keep for years, and is always ready to use without heat, except in very cold weather, when it may need to be set a little while in a warm place, before using.

2. Imitation of Spalding's Glue.—First, soak in cold water all the glue you wish to make at one time, using only glass, earthen, or procelain dishes; then by gentle heat dissolve the glue in the same water, and pour in a little nitric acid, sufficient to give the glue a sour taste, like vinegar, or from ½ oz. to 1 oz. to each pound of glue.

The acid keeps it in a liquid state, and prevents it from spoiling; as nice as Spalding's or any other, for a very trifling expense. If iron dishes are used, the acid corrodes them and turns the glue black. Or:

3. Acetic acid, 1 oz.; pure soft water, 6 ozs.; glue, 3 ozs.; gum tragacanth, 1 oz. Mix, and if not as thick as desired, add a little more glue.

This keeps in a liquid state, does not decompose; and is valuable for Druggists in labeling; also for house use; and if furniture men were not prejudiced, they would find it valuable in the shop.

4. Water-Proof Glue—Is made by first soaking the glue in cold water, for an hour or two, or until it becomes a little soft, yet retain-

ing its original form; then taking it from the water and dissolving it by gentle heat, stirring in a little boiled linseed-oil.

If mahogany veneers were put on with this glue, they would not fall off, as they now do, by the action of the atmosphere.

FIRE KINDLERS.—To make very nice fire kindlers, take resin, any quantity, and melt it, putting in for each pound being used, from 2 to 3 ozs. of tallow, and when all is hot, stir in pine saw-dust to make very thick; and, while yet hot, spread it out about 1 inch thick, upon boards which have fine saw-dust sprinkled upon them, to prevent it from sticking. When cold, break up into lumps about 1 inch square. But if for sale, take a thin board and press upon it, while yet warm, to lay it off into 1 inch squares; this makes it break regularly, if you press the crease sufficiently deep, greasing the marking-board to prevent it from sticking.

One of these blocks will easily ignite with a match, and burn with a strong blaze long enough to kindle any wood fit to burn. The above sells readily in all our large towns and cities at great profit.

2. Most of the published recipes call for resin, 3 lbs.; tar, 1 qt.; and 1 gill of turpentine; but they make a black, sticky mess of stuff, which always keeps the hands daubed. On the other hand, this makes a resin-colored kindler, which breaks nicely also when cold; and they are decidedly a nice thing; and much more certain to start a fire than shavings. If the tar plan is used, 1 pt. is enough for 5 lbs. of resin.

STARCH POLISH.—White-wax, 1 oz.; spermaceti, 2 ozs.; melt them together with a gentle heat.

When you have prepared a sufficient amount of starch, in the usual way, for a dozen pieces—put into it a piece of the polish the size of a large pea; more or less, according to large or small washings. Or, thick gum solution (made by pouring boiling water upon gum arabic,) one table spoon to a pint of starch, gives clothes a beautiful gloss.

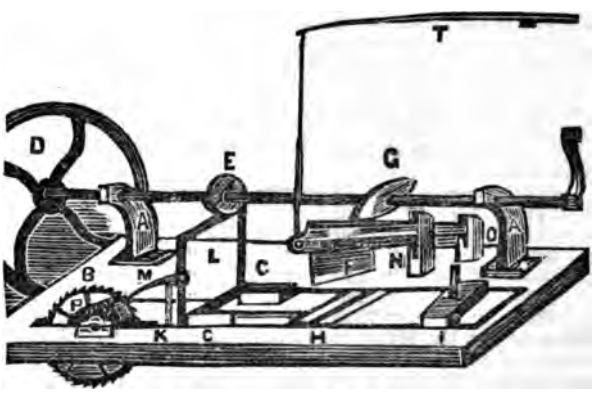
PERCUSSION MATCHES—Of the Best Quality.—Chlorate of potash, ¾ lb.; glue, 3 lbs.; white lead, dry, 5 lbs.; red lead, ½ lb.; phosphorus, 2¾ lbs. DIRECTIONS.—First put the chlorate into a dish made for the purpose, deep, and of a suitable size to set into a kettle of water, which can be kept on the fire for 2 or 3 days, having 2 qts. of water on the chlorate; then put the glue on top of the chlorate water and let soak, until all is perfectly dissolved; then add the leads and heat up quite hot, and thoroughly mix; let cool, and add the phosphorus, let it dissolve and be careful never to heat hot after the phosphorus is added; stir occasionally when dipping, and if little particles of phosphorus fires, push it down into the mixture, or put on warm water; if you put on cold water it will fly all over you. Keep it rather thin after the phosphorus is put in, and there will be no danger; although the chlorate of potash is considered a dangerous article to work with; so is powder, yet when you know how to work with them, you can do as safely with one as the other. When dry give them a coat of varnish.

I have been acquainted with a man for about fourteen years who makes them, and several others for a less time, without trouble or accident. A better match was never made to stand dampness, or bear transportation without setting on fire. I have used and sold them much of the time, and speak from knowledge. One explosion has since taken place.

The plan pursued here in preparing the splints is as follows:—Sawed pine timber from four to eight inches each way, is cut off the right length for the match, then one end of it is shaved smooth with a

drawing-knife; the block is held upon the horse by a brace from the top of the horse head against the back side of the block, so as to be out of the way of the knife instead of putting the block under the jaws of the horse head, as the dents made in the end of match timber would not answer; the front edge comes against a strip put on for that purpose; then glue the other end and put on brown paper which holds them together when split; machines are used to split with which feed up the block enough each time the knife is raised, to make the size of the match when split the other way, or about ten to the inch. These machines cost about fifty dollars, and the work goes ahead like a young saw-mill, by simply turning a crank as shown in the figure.

A A, shows two standards bolted upon a base plank, four feet in length; these standards support a shaft, with crank and balance wheel D, which is two feet in diameter; the shaft has upon it an oval wheel, G, which sinks the knife, F, twice in each revolution, the knife passing down through a space in a thin iron strip, H, standing out from the two blocks, C C, under which the match block passes by the drawing of the chain seen to pass over a small drum, P, upon the shaft of the rag wheel, B, the notches being only one-fourth inch apart, and fed up by the hand, M, attached to the iron frame, L, being kept back to the cam wheel, E, which has two swells upon it, by a light spring which is not shown.



Match Splitting Machine.

The hand, M, is kept down into the cogs or notches by the little spiral wire spring, K; the match block, to be split, sets in the frame forward of the block, I, which has a pin in it to draw back the frame. When the block of matches is split, this frame goes forward to touch a catch, the same as a saw-mill, which lets another spring not seen, raise the hand, M, when the feeding operation ceases. The frame is then drawn back and the same repeated. As the match is split they open and require a rounding mortise made through the base plank between the blocks, C C, which allows them to remain in a half-circular form—the knife is raised by a line attached to a spring pole, T, the knife is screwed upon a piece of cast iron which works in the guide, N, having the back and end firmly fastened by a bolt through the standard, O. This knife stands at right angles with the shaft. When the matches are split and

sufficiently dry to work upon, they are dipped in melted brimstone, kept hot, and the match also kept hot on a sheet iron stove, and all the brimstone is thrown off which can possibly be by jerking the block with the hand. If any brimstone remains upon the end it must be scraped off before dipping into the match composition. Without the chlorate, the composition makes a first-class "Friction Match." It ought to be known, however, that the match business is an unhealthy occupation, from the poisonous effects of the phosphorus.

STEAM BOILERS.—To Prevent Lime Deposits.—Put into your cistern or tank, from which the boiler is fed, a sufficient amount of oak tan-bark, in the piece, to color the water rather dark; run 4 weeks and renew.

This plan has been much used in the lime-stone sections of Washington, O., giving general satisfaction.

2. Ohio River Plan.—Sprouts from barley, in malting, are recommended by Capt. Lumm, part owner of a steamboat, and engineer on the Ohio and Mississippi rivers, to prevent the deposit of lime upon boilers, and he says tightens up old leaky boilers, also. It may be used in quantities of from 3 pts. to 2 or 3 qts., according to size of boilers.

When it is put in you must know the quantity of water in the boiler, for unless you heat up quite slow it causes a foaming of the water, and might deceive the engineer about the amount of water in the boiler, but if heat up slow there is no danger of this deception.

3. To Prevent Explosion, with the Reason why they Explode.—At a recent meeting of the Association for the Advancement of Science Mr. Hyatt, of New York, presented what we believe to be the true cause. He presented the following table, showing the rapidity with which pressure is *doubled* by only a slight increase of heat.

At 212 degrees of heat water begins to boil; at 868 degrees iron becomes of a red heat:

212	degrees of heat,		15	pounds to	square	inch.
251	"	"	30	"	"	"
294	"	"	60	"	"	"
342	"	"	120	"	"	"
398	"	"	240	"	"	"
464	"	"	480	"	"	"
868	"	"	7680	"	"	"

It was stated by Mr. Hyatt, that, from experiments he had made, this great increase of pressure could be obtained in *six to seven minutes*, with an engine at rest. This rapid doubling of pressure, with but a small increase of heat, is due to the conversion of what is termed latent heat, in steam, into sensible heat. If we immerse a thermometer into boiling water, it stands at 212; if we place it in steam immediately above the water it indicates the same temperature. The question then arises what becomes of all the heat which is communicated to the water, since it is neither indicated by the water nor by the steam formed from it? The answer is, it enters the water and converts into steam without raising the temperature. One *thousand* degrees of heat are absorbed in the conversion of water into steam, and this is called its *latent* heat. And it is the *sudden* conversion of *latent* heat into *sensible* heat that produces the explosion. If an engine is stopped, even if there is but a moderate fire, if the escape valve is closed, there is a rapid absorption or accumulation of latent heat. The pressure rises with great rapidity, and when the engineer thinks everything is safe, the explosion comes.

That this is the true cause of nearly all the explosions that occur will be plain to every one who will look at the relations between latent

and sensible heat. Prof. Henry and Prof. Silliman, Jr., endorse the view. What, then, is the security against explosions? We know of no securities but these—a sufficiency of water in the boilers, and the *escape valves open* at light pressure, when the engine is at rest.—*Springfield Republican.*

There is no question about the foregoing explanations being founded in *true* philosophy; and if engineers will be *governed* by them, instead of a desire to hold on to steam for the purpose of getting *ahead* or of *keeping* ahead, as the case may be, of some other boat; or on land, to save the expense of fuel, not *one* explosion would take place where now there is, at least, a *hundred.*

Awful will be the reckoning with these *murderers;* for in Heaven's sight they are one and the same.

A series of experiments have recently been concluded on the U. S. Steamer Michigan, and a full but voluminous report laid before the Navy Department, upon the subject of steam expansion. It would pay all interested in steam works to obtain and read it.

PLUMS AND OTHER FRUIT—To Prevent Insects from Stinging.—Take new, dry lime, sulphur, and gunpowder, equal parts, pulverized very fine, and throw it amongst the flowers when in full bloom; use it freely so that all may catch a little.

This has been tried with success. Working upon the principle of pepper, to keep flies from meat. The injury to fruit being done while in blossom.

BED-ROOM CARPETS—For Twelve and a Half Cents per Yard.—Sew together the cheapest cotton cloth, the size of the room, and tack the edges to the floor. Now paper the cloth as you would the sides of a room, with cheap room paper; putting a border around the edge if desired. The paste will stick better if a little gum arabic is mixed with it. When thoroughly dry, give it two coats of furniture or carriage varnish, and when dry it is done.

It can be washed; and looks well in proportion to the quality and figure of the paper used. It could not be expected to stand the wear of a kitchen, for any length of time, but for bed-rooms it is well adapted.

COFFEE—More Healthy and Better Flavored, for One-Fourth the Expense of Common.—Coffee, by weight or measure, one-fourth, rye, three-fourths.

Look them over separately, to remove bad grains; then wash to remove dust, draining off the water for a moment as you take it with the hands, from the washing water, putting directly into the browning skillet, carefully stirring, all the time, to brown it evenly. Brown each one separately; then mix evenly, and grind only as used; settling with a beaten egg, seasoning with a little cream and sugar as usual.

And I do sincerely say the flavor is better, and it is one hundred per cent. more healthy than all coffee.

You may try barley, peas, parsnips, dandelion roots, etc., but none of their flavors are equal to rye. Yet all of them are more or less used for coffee.

PICKLING FRUITS AND CUCUMBERS—Pickling Apples.—Best vinegar, 1 gal.; sugar, 4 lbs.; apples, all it will cover handsomely; cinnamon and cloves, ground, of each, 1 table-spoon.

Pare and core the apples, tying up the cinnamon and cloves in a cloth and putting with the apples, into the vinegar and sugar and cooking until done, only. Keep in jars. They are nicer than preserves, and more healthy, and keep a long time; not being too sour, nor too sweet, but an agreeable mixture of the two. It will be seen

below that the different fruits require different quantities of sugar and vinegar, the reason for it, is, the difference in the fruit.

2. Pickling Peaches.—Best vinegar, 1 qt.; sugar, 4 lbs.; peaches, peeled and stoned, 8 lbs.; spices as desired, or as for apples.

Treat every other way as apples. If they should begin to ferment, at any time, simply boil down the juice; then boil the peaches in it for a few minutes only.

3. Peaches—To Peel.—In peeling small peaches with a knife, too much of the peach is wasted; but by having a wire cage, similar to those made for popping corn; fill the cage with peaches and dip it into boiling water, for a moment, then into cold water for a moment and empty out; going on in the same way for all you wish to peel. This toughens the skin and enables you to strip it off, saving much in labor, and also the waste of peach. Why not, as well as tomatoes?

4. Pickling Plums.—Best vinegar, 1 pt.; sugar, 4 lbs.; plums, 8 lbs.; spices to taste.

Boiling them in the mixture until soft; then take out the plums, and boil the syrup until quite thick and pour it over them again.

5. Pickling Cucumbers.—Pick each morning; stand in weak brine 3 or 4 days, putting in mustard pods and horse-radish leaves to keep them green. Then take out and drain, covering with vinegar for a week; at which time take out and drain again, putting into new vinegar, adding mustard seed, ginger root, cloves, pepper and red pepper pods, of each about 1 or 2 ozs.; or to suit different tastes, for each barrel.

The pickles will be nice and brittle, and pass muster at any man's table, or market. And if it was generally known that the greenness of pickles was caused by the action of the vinegar on the copper kettle, producing a *poison*, (verdigris,) in which they are directed to be scalded, I think no one would wish to have a nice *looking* pickle at the expense of HEALTH; if they do, they can continue the bad practice of scalding; if not, just put your vinegar on cold, and add your red peppers, or cayennes, cloves, and other spices, as desired; but the vinegar must be changed once, as the large amount of water in the cucumber reduces the vinegar so much that this change is absolutely necessary; and if they should seem to lose their sharp taste again, just add a little molasses, or spirit, and all will be right.

SANDSTONE—To Prevent Scaling by Frost.—Raw linseed-oil, 2 or 3 coats.

Apply in place of paint, not allow the first coat to get entirely dry until the next is applied; if it does, a skin is formed which prevents the next from penetrating the stone. Poorly burned brick will be equally well preserved by the same process.

SEALING WAX—Red, Black and Blue.—Gum Shellac, 8 ozs.; Venice turpentine, 4 ozs.; vermillion, 2½ ozs.; alcohol, 2 ozs.; camphor gum, ½ oz. Dissolve the camphor in the alcohol, then the shellac, adding the turpentine, and finally the vermillion, being very careful that no blaze shall come in contact with its fumes; for if it does, it will fire very quickly.

Blue.—Substitute fine Prussian-blue for the vermillion, same quantity.

Black.—Lamp-black only sufficient to color. Either color must be well rubbed into the mixture.

ADVICE—To Young Men and Others, out of Employment.—Advice.—How few there are who will hear advice at all; not because it is advice, but from the fact that those who attempt to give it are not

qualified for the work they assume; or that they endeavor to thrust it upon their notice at an inappropriate time; or upon persons over whom no control is acceded, if claimed. But a book or paper never give offense from any of these causes; therefore, they are always welcomed with a hope that real benefit may be derived from their suggestions. Whether that end will be attained in this case, I leave to the judgment of those for whom it is intended; hoping they may find themselves sufficiently interested to give it a careful perusal, and candid consideration. And although my remarks must, in this work, be necessarily short, yet every sentence shall be a text for your own thoughts to contemplate and enlarge upon; and perhaps, in some future edition of the work, I may take room and time to give the subject that attention which is really its due; and which would be a pleasure to devote to its consideration.

First, then, let me ask why are so many young men and other persons out of employment? The answer is very positive as well as very plain. It is this—indolence, coupled with a determination that they will do some *great* thing, only. And because that great thing does not turn up without effort, they are doing nothing. The point of difficulty is simply this: They look for the end, before the beginning. But just consider how few there are that really accomplish any great thing, even with a whole life of industry and economical perseverance. And yet most of our *youth* calculate that their *beginning* shall be among the *greats*. But as no one comes to offer them their expectations, indolence says wait; and so they are still waiting. Now mind you, so long as your expectations are placed upon a chance offer of something very remunerative, or upon the assistance of others, even in a small way, so long will you continue to wait in vain. At this point, then, the question would arise, what can be done? and the answer is equally plain with the other. Take hold of the first job you can find, for it will not find you. No matter how insignificant it may be, it will be better than longer idleness; and when you are seen doing something for yourself, by those whose opinions are worth any consideration, they will soon offer you more and better jobs; until, finally, you will find something which agrees with your taste or inclination, for a life business. But remember that the *idle* never have good situations offered them. It is the industrious and persevering only, who are needed to assist in life's great struggle.

There are a few lines of poetry called "The Excellent Man," which advocates the principles I am endeavoring to advance, so admirably that I cannot deny myself the pleasure of quoting them. The old proverb, "God helps those who help themselves," is as true as it is old, and after all that is said and done, in this country, if in no other, a man must depend on his own exertions, not on patronage, if he would have or deserve success:

"They gave me advice and counsel in store,
Praised me and honored me more and more,
Said that I only should 'wait awhile,'
Offered their patronage, too, with a smile.

But with all their honor and approbation,
I should long ago have died of starvation,
Had there not come an *excellent* man,
Who, bravely to help me along began.

Good-fellow! he got me the food I ate;
His kindness and care I shall never forget;
Yet I cannot embrace him—though other folks can,
For I, *myself*, am this excellent man.

Up, then, and at it, for there is

> Knitting and sewing, and reaping and mowing,
> And all kinds of work for the people to do.
> To keep themselves busy, both Abram and Lizzie;
> Begin, then, ye idle, there is plenty for you.

When you have found a situation or a job of work, prove yourself honest, industrious, persevering, and faithful in every trust, and no fears need be apprehended of your final success. Save a part of your wages as a sinking fund, or rather as a floating fund, which shall keep your head above water in a storm; or to enable you, at no distant day, to commence a business of your own.

A poor orphan boy, of fourteen, once resolved to save half of his wages, which were only four dollars per month, for this purpose; and actually refused, even in sickness, although really suffering for comforts, to touch this business fund. He was afterwards the richest man in St. Louis.

His advice to young men was always this: "Go to work; save half your wages; no matter how small they may be, until you have what will enable you to begin what you wish to follow; then begin it, stick to it; be economical, prudent, and careful, and you cannot fail to prosper."

My advice is the same, with this qualification, however; that in choosing your occupation, you should be governed by the eternal principles of right! never choosing that which when done, injures a fellow creature more than it can possibly benefit yourself—I mean the liquor traffic. But, with the feeling of St. Paul, when he saw the necessity of doing something different from what he had been doing, he cried out, "Lord, what wilt thou have me to do?" Ask your own tastes, being governed by conscience, under the foregoing principles, knowing that if a person has to learn a trade or business *against* his own inclination, it requires double dilligence to make only half speed, and hardly ever meeting with success.

The question to be settled, then, is this: Shall I work the soil, shall I be a mechanic, teacher, divine, physician, lawyer, merchant, druggist, or grocer, or shall it be something else? Whenever you make up your mind what it shall be, make it up, also, to be the best one in that line of business. Set your mark high, both in point of moral purity and literary qualifications.

If you choose any of the occupations of trade, you must save all that is possible for economy and prudence to do, for your beginning.

But if you choose one of the learned professions, you must work with the same care and prudence until you have accumulated sufficient to make a fair commencement in your studies; then prosecute them in all faithfulness as far as the accumulated means will advance you; realizing that this increase of knowledge will give you increased power in obtaining the further means of prosecuting your studies, necessary to qualify you to do one thing only in life.

Nearly all of our best men are self-made, and men of one idea; *i. e.*, they have set themselves to be mechanics, physicians, lawyers, sculptors, etc., and have beat their whole energies and lives to fit themselves for the great work before them. Begin, then; offer no excuse. Be sure you are on the right track, then go ahead.

> "Live for something; slothful be no longer,
> Look around for some employ;
> Labor always makes you stronger,
> And also gives you sweetest joy.

Idle hands are always weary;
Faithful hearts are always gay;
Life for us, should not be dreary;
Nor can it, to the active, every day.

Always remembering that industry, in study or labor, will keep ahead of his work, giving time for pleasure and enjoyment; but indolence is ever behind; being driven with her work, and no prospect of its ever being accomplished.

When you have made your decision, aside from what time you must necessarily devote to labor, let all possible time be given to the study of the best works upon the subject of your occupation or profession, knowing that one hour's reading in the morning, when the mind is calm and free from fatigue, thinking and talking with your companions through the day upon the subjects of which you have been reading, will be better than twice that time in evening reading; yet if both can be enjoyed, so much the better; but one of them must certainly be occupied in this way.

If you choose something in the line of mercantile or trade life, do not put off, too long, commencing for yourself. Better begin in a small way and learn, as your capital increases, how to manage a larger business.

I knew a gentleman to commence a business with five dollars, and in two weeks his capital was seventeen dollars, besides feeding his family.

I knew one, also, to begin with sixty dollars, and in fifteen months he cleared over four hundred and fifty dollars, besides supporting his family. Then he sold out, and lost all, before he again got into successful business.

No person should ever sell out, or quit an honorable, paying business.

Those who choose a professional life, will hardly find a place in the West equal to the University of Michigan, Ann Arbor, to obtain their literary qualifications. An entrance fee of ten dollars to residents of Michigan, and twenty-five dollars to residents of other States and countries, with ten dollars yearly, pays for a full Literary, Law, Medical, or Civil Engineering course; the first requiring four, the two next, two, and the last, three years. [See Frontispiece.]

Or, in the words of the Catalogue: "The University having been endowed by the General Government, affords education without money and without price. There is no young man so poor, that industry, diligence, and perseverance, will not enable him to get an education here.

"The present condition of the University confirms this view of its character. While the sons of the rich, and of men of more or less property, and, in large proportion, the sons of substantial farmers, mechanics, and merchants, are educated here, there is also a very considerable number of young men, dependent *entirely* upon their own exertions—young men who, accustomed to work on the farm, or in the mechanic's shop, have become smitten with the love of knowledge, and are manfully working their way through, to a liberal education, by appropriating a portion of their time to the field or the workshop."

Persons wishing to qualify themselves for teaching in this State, will find the Normal School, Ypsilanti, undoubtedly preferable.

And that none may excuse themselves from an effort because somewhat advanced in life, let me say that Dr. Eberle, who wrote sev-

eral valuable medical works, did not begin his medical studies until forty-five years of age; and, although I could mention many more, I will only add that I myself always desired to become a physician, yet circumstances did not favor or justify my commencement until I was thirty-eight. See the remarks following "Eye Water."

There is no occupation, however, so free and independent as that of the farmer; and there is none, except parents, capable of using so great an influence, for good or for evil, as that of teacher.

All might and ought, to a greater or less extent, be farmers; but all cannot be teachers. Then let those whose taste inclines them to teach, not shrink the responsibility, but fully qualify for the work; learning also the ways of truth and righteousness for themselves; teaching it through the week-school, by action as well as by word, and in the Sabbath-school fail not to take their stand for the right, like our President *elect;* then when it comes your turn to assist in the government of the State, or nation, the people will come to your support, as you do to your work—as they have just done to his, (1860); feeling as now, that the government must be safe in the hands of those who love God—deal honestly with their fellows—and who, in remembering the Sabbath to keep it holy themselves, are not ashamed, nor forget, to teach the children to love the same God, and reverence His Word. Only think: a Sabbath-school teacher—a *rail-splitter*—a *boatman*—President of the United States!

Who will hereafter be afraid of common labor, or let indolence longer prevent their activity, when it is only those who begin with *small* things, and persevere *through* life, that reach the final goal of greatness, and, as in this case, are crowned with the greatest honor which man can receive—the *confidence* of his nation?

Then let *industry* take the place of *indolence*, beginning to be great by grappling with the small things of life. Be faithful to yourself, and you may reasonably expect the end shall indeed be great.

And although it could not be expected, in a work of this kind, that much could or would be said directly regarding a future life, yet I should be recreant to my duty if I did not say a word more upon that subject. It shall be only a word. Be as faithful to GOD as I have recommended you to be to yourselves, and all things pertaining to a future will be equally prosperous, and glorious in their results.

GRAMMAR IN RHYME—For the Little Folks.—It is seldom that one sees so much valuable matter as the following lines contain, comprised in so brief a space. Every young grammarian, and many older heads, will find it highly advantageous to commit the "poem" to memory, for with these lines at the tongue's end, none need ever mistake a part of speech:

1. "Three little words you often see,
   Are articles—*a*, *an*, and *the*.
2. A Noun's the name of any thing,
   As *school*, or *garden*, *hoop*, or *swing*.
3. Adjectives tell the kind of Noun,
   As *great*, *small*, *pretty*, *white*, or *brown*.
4. Instead of Nouns the Pronouns stand—
   Her head, *his* face, *your* arm, *my* hand.
5. Verbs tell of something to be done—
   To *read*, *count*, *sing*, *laugh*, *jump*, or *run*.

6. How things are done, the Adverbs tell,
   As *slowly*, *quickly*, *ill*, or *well*.
7. Conjunctions join the words together,
   As men *and* women, wind *or* weather.
8. The Preposition stands before
   A Noun, as *in* or *through* a door.
9. The Interjection shows surprise,
   As *oh!* how pretty, *ah!* how wise.

The whole are called Nine Parts of Speech,
Which reading, writing, speaking, teach.

MUSICAL CURIOSITY—Scotch Genius in Teaching.—A Highland piper having a scholar to teach, disdained to crack his brains, with the names of semibreves, minims, crotchets, and quavers:

"Here, Donald," said he, "tak' yer pipes, lad, an' gie us a blast. So—verra weel blawn indeed; but what's a sound, Donald, without sense? Ye mawn blaw forever without makin' a tune o't, if I dinna tell ye how the queer things on the paper maun help ye. You see that big fellow wi' a round, open face? (pointing to a semibreve between two lines of a bar.) He moves slowly from that line to this, while ye beat ane wi' yer fist, and gie us a long blast. If, now, ye put a leg to him, ye mak' twa o' him, an' he'll move twice as fast; and if ye black his face, he'll run four times faster than the fellow wi' the white face; but if, after blacking his face, ye'll bend his knee or tie his leg, he'll nop eight times faster than the white-faced chap I showed you first. Now, whene'r ye blaw yer pipes, Donald, remember this—that the tighter those fellows' legs are tied, the faster they'll run, and the quicker they're sure to dance."

That is, the more legs they have bent up, contrary to nature, the faster goes the music.

APPENDIX TO MISCELLANEOUS DEPARTMENT.

BY THE PUBLISHER.

Business Law.—Ignorance of the law excuses no one. It is a fraud to conceal a fraud.

The law compels no one to do impossibilities.

An agreement without consideration is void.

Signatures made with a lead-pencil are good in law.

A receipt for money paid is not legally conclusive.

The acts of one partner bind all the others.

Contracts made on Sunday cannot be enforced.

A contract made with a minor is void.

A contract made with a lunatic is void.

Contracts for advertisements in Sunday newspapers are invalid.

Principals are responsible for the acts of their agents.

Agents are responsible to their principals for errors.

Each individual in a partnership is responsible for the whole amount of the debts of the firm.

A note given by a minor is void

Notes bear interest only when so stated.

It is not legally necessary to say on a note "for value received."

A note drawn on Sunday is void.

A note obtained by fraud, or from a person in a state of intoxication, cannot be collected.

If a note be lost or stolen, it does not release the maker; he must pay it.

An endorser of a note is exempt from liability if not served with notice of its dishonor within twenty-four hours of its non-payment.

Business Maxims.—Caution is the father of security.

He who pays before-hand is served behind-hand.

If you would know the value of a dollar, try to borrow one.

Be silent when a fool talks.

Never speak boastingly of your business.

An hour of triumph comes at last to those who watch and wait.

Word by word Webster's big dictionary was made.

Speak well of your friends—of your enemies say nothing.

Never take back a discharged servant.

If you post your servants upon your affairs, they will one day rend you.

Do not waste time in useless regrets over losses.

Systematize your business, and keep an eye on little expenses. Small leaks sink great ships

Never fail to take a receipt for money paid, and keep copies of your letters.

Do your business promptly, and bore not a business man with long visits.

Law is a trade in which the lawyers eat the oysters and leave the clients the shells.

Rothschild, the founder of the world-renowned house of Rothschild & Co., ascribed his success to the following:

Never have anything to do with an unlucky man.

Be cautious and bold.

Make a bargain at once.

Bug Poison.—Proof spirit, 1 pt.; camphor, 2 ozs.; oil of turpentine, 4 ozs.; corrosive sublimate, 1 oz. Mix.

To Avoid Catching Cold.—Accustom yourself to the use of sponging with cold water every morning on first getting out of bed. It should be followed by a good deal of rubbing with a wet towel. It has considerable effect in giving tone to the skin, and maintaining a proper action in it, and thus proves a safeguard to the injurious influence of cold and sudden changes of temperature. Sir Astley Cooper said: "The methods by which I have preserved my own health are—temperance, early rising, and sponging the body every morning with cold water, immediately after getting out of bed—a practice which I have adopted for thirty years without ever catching cold."

Substitute for Cement.—The white of an egg, well beaten with quicklime, and a small quantity of very old cheese, forms an excellent substitute for cement, when wanted in a hurry, either for broken china or old ornamental glassware.

Cement for Broken China, Glass, etc.—The following recipe, from experience, we know to be a good one; and being nearly colorless, it possesses advantages which liquid glue and other cements do not:—Dissolve ½ oz. of gum acacia in a wine-glass of boiling water; add plaster of Paris sufficient to form a thick paste, and apply it with a brush to the parts required to be cemented together. Several articles upon our toilet table have been repaired most effectually by this recipe.

Capacity of Cisterns or Wells.—Tabular view of the number of gallons contained in the clear, between the brick-work, for each ten inches of depth:

DIAMETER.	GAL.	DIAMETER.	GAL.
2 feet equal	19	8 feet equal	313
2½ " "	30	8½ " "	353
3 " "	44	9 " "	396
3½ " "	60	9½ " "	461
4 " "	78	10 " "	489
4½ " "	99	11 " "	593
5 " "	122	12 " "	705
5½ " "	148	13 " "	827
6 " "	176	14 " "	959
6½ " "	207	15 " "	1101
7 " "	240	20 " "	1958
7½ " "	275	25 " "	3059

Disinfecting Fumigation.—Common salt, 3 ozs.; black manganese, oil of vitriol, of each, 1 oz.; water, 2 ozs.; carried in a cup through the apartments of the sick; or the apartments intended to be fumigated, where sickness has been, may be shut up for an hour or two, and then opened.

Coffee a Disinfectant.—Numerous experiments with roasted coffee prove that it is the most powerful means, not only of rendering animal and vegetable effluvia innocuous, but of actually destroying them. A room in which meat in an advanced degree of decomposition had been kept for some time, was instantly deprived of all smell on an open coffee-roaster being carried through it, containing a pound of

coffee newly roasted. In another room, exposed to the effluvium occasioned by the clearing out of the dung-pit, so that sulphuretted hydrogen and ammonia in great quantities could be chemically detected, the stench was completely removed in half a minute, on the employment of three ounces of fresh-roasted coffee, whilst the other parts of the house were permanently cleared of the same smell by being simply traversed with the coffee-roaster, although the cleansing of the dung-pit continued for several hours after. The best mode of using the coffee as a disinfectant is to dry the raw bean, pound it in a mortar, and then roast the powder on a moderately heated iron plate, until it assumes a dark brown tint, when it is fit for use. Then sprinkle it in sinks or cesspools, or lay it on a plate in the room which you wish to have purified. Coffee acid or coffee oil acts more readily in minute quantities.

Charcoal as a Disinfectant.—The great efficacy of wood and animal charcoal in absorbing effluvia, and the greater number of gases and vapors, has long been known.

Charcoal powder has also, during many centuries, been advantageously employed as a filter for putrid water, the object in view being to deprive the water of numerous organic impurities diffused through it, which exert injurious effects on the animal economy.

It is somewhat remarkable that the very obvious application of a perfectly similar operation to the still rarer fluid in which we live—namely, the air, which not unfrequently contains even more noxious organic impurities floating in it than those present in water—should have for so long a period been so unaccountably overlooked.

Charcoal not only absorbs effluvia and gaseous bodies, but especially, when in contact with atmospheric air, oxidizes and destroys many of the easily alterable ones, by resolving them into the simplest combinations they are capable of forming, which are chiefly water and carbonic acid.

It is on this oxidizing property of charcoal, as well as on its absorbent power, that its efficacy as a deodorizing and disinfecting agent chiefly depends.

Effluvia and miasmata are usually regarded as highly organized, nitrogenous, easily alterable bodies. When these are absorbed by charcoal, they come in contact with highly condensed oxygen gas, which exists within the pores of all charcoal which has been exposed to the air, even for a few minutes; in this way they are oxidized and destroyed.

Flies to Destroy.—A tea-spoon of laudanum, and two table-spoons of water, strongly sweetened with sugar, placed in a saucer,—or dissolve quassia chips in boiling water, and sweeten. Or a strong infusion of green tea, well sweetened. Or ground black pepper and sugar, diluted in milk, and put on plates, etc.

Flies, To keep off.—Dust meat over with pepper, or powdered ginger, or fasten to it a piece of paper on which camphor has been well rubbed, or a few drops of creosote.

Mixture for Destroying Flies.—Infusion of quassia, 1 pt.; brown sugar, 4 ozs.; ground pepper, 2 ozs. To be well mixed together, and put in small shallow dishes when required.

To Destroy Flies in a room, take half a tea-spoon of black pepper in powder, 1 tea-spoon of brown sugar, and 1 table-spoon of cream, mix them well together, and place them in the room on a plate, where the flies are troublesome, and they will soon disappear.

Flies.—Cold green tea, very strong, and sweetened with sugar

will, when set about the room in saucers, attract flies, and destroy them.

Grease and Oil, to Remove.—Make a strong lye of pearl-ashes and soft water; and as much unslacked lime as it will take up; stir it together; let it settle; bottle it and stop close; have water ready to lower it as used, and scour the part with it. If the liquor should lie long on the boards it will extract the color of them. Use care and expedition.

Grease, to clean from Floors.—Spread over the stain a thick coat of soft soap, then pass a heated flat-iron a few times across it, after which wash immediately, first with Fullers' earth water, and then clean water.

Grease Spots, to remove.—The application of spirits of turpentine, and a little essence of lemon; wash with soap and water. Some wash with alum water, or white soap, potass, and ox-gall, or with sour butter-milk mixed with strong ascetic acid.—Or apply a solution of magnesia.

Grease Spots, to remove from Books.—Moisten the spot with a camel-hair pencil dipped in spirits of turpentine; when dry, moisten with spirits of wine.

Grease, to remove from Cloth.—Soft soap, and fuller's earth, ½ lb.; be at well together in a mortar, and form into cakes. The spot, first moistened with water, is rubbed with a cake, and allowed to dry, when it is well rubbed with a little warm water, and rinsed, or rubbed off clean.

Hair-Brushes and Combs, to Clean.—Dissolve potash in boiling water, and rub the brush with soap; dip the brush into the solution, and draw it through the comb frequently, taking care to keep the wood dry. Lastly, rinse the hair in cold water, and dry.

To Prevent Moths.—In the month of April or May, beat your fur garments well with a small cane or elastic stick, then wrap them up n linen, without pressing the fur too hard, and put betwixt the folds some camphor in small lumps; then put your furs in this state in boxes well closed. When the furs are wanted for use, beat them well as before, and expose them for twenty-four hours to the air, which will take away the smell of the camphor. If the fur has long hair, as bear or fox, add to the camphor an equal quantity of black pepper in powder.

To free Plants from Leaf-Lice.—M. Braun, of Vienna, gives the following as a cheap and easy mode of effecting it:—Mix 1 oz of flour of sulphur with 1 bushel of sawdust; scatter this over the plants infected with these insects, and they will soon be freed, though the second application may possibly be necessary.

Paste is usually made by rubbing up flour with cold water, and boiling; if a little alum is mixed before boiling it is much improved, being less clammy, working more freely in the brush, and thinner, a less quantity is required, and it is therefore stronger. If required in a large quantity, as for papering rooms, it may be made by mixing 3½ lbs. flour, ¼ lb. of alum; and a little warm water; when mixed, the requisite quantity of boiling water should be poured on whilst the mixture is being stirred. Paste is only adapted to cementing paper; when used it should be spread on one side of the paper; which should then be folded with the pasted side inwards, and allowed to remain a few minutes before being opened and used; this swells the paper, and permits its being more smoothly and securely attached.

Destruction of Rats.—The following recipe for the destruction

of rats has been communicated by Dr. Ure to the council of the English Agricultural Society, and is highly recommended as the best known means of getting rid of these most obnoxious and destructive vermin. It has been tried by several intelligent persons, and found perfectly effectual. Melt hog's lard in a bottle plunged in water, heated to about 150 deg. of Fahr.; introduced into ½ oz. of phosphorus for every pound of lard; then add a pint of proof spirits, or whisky; cork the bottle firmly after its contents have been heated to 150 deg., taking it at the same time out of the water, and agitate smartly till the phosphorus becomes uniformly diffused, forming a milky-looking liquid. This liquid, being cooled, will afford a white compound of phosphorus and lard, from which the spirit spontaneously separates, and may be poured off to be used again, for none of it enters into the combination, but it merely serves to comminute the phosphorus, and diffuse it in very fine particles through the lard. This compound, on being warmed very gently, may be poured out into a mixture of wheat flour and sugar, incorporated therewith, and then flavoured with oil of rhodium, or not, at pleasure. The flavor may be varied with oil of aniseed, etc. This dough, being made into pellets, is to be laid in ratholes. By its luminousness in the dark, it attracts their notice, and being agreeable to their palates and noses, it is readily eaten, and proves certainly fatal.

Rats, to Destroy.—Mix powdered nux vomica, with oatmeal, crumbs of cheese, and a quantity of lard, for a few nights omit the nux vomica, till they become familiar with the other food. Or, add, instead of nux vomica, powdered phosphorus. Mix with a piece of wood, that the rats may not scent your hands. Place it beyond the reach of other animals. The addition of a little oil of amber attracts the rats. Or, cut cork into very fine bits, and fry them with lard and cheese crumbs. When cold, add oil of amber to entice them. Or, take oil of amber, ox-gall, and powdered phosphorus, in equal parts, add oatmeal sufficient to form a paste, which make into little balls, and lay them near the places visited by rats. surround the balls with vessels full of water. The smell of the oil attracts the rats; they greedily devour the balls, which make them thirsty, and they kill themselves with drinking the water.

The asphodel is useful in driving away rats and mice, which have such an antipathy to this plant, that if their holes be stopped up with it they will rather die than pass.

It is a good thing to put gas-tar in the runs and holes of rats. When once daubed with it they will come no more.

Feed them well for a week with fresh oatmeal, every day; but never touch it with your hand; put it into a dish pressed down that you may see what they have eaten. Then mix another lot with four drops of oil of aniseed, or oil of rhodium; feed with this two or three days more. Then give the following mixture:—To 4 ozs. of dry oatmeal scented with 6 drops of oil of aniseed, add ½ oz. of carbonated barytes, or nux vomica in powder, sifted through muslin. Mix this intimately with the scented oatmeal; then lay it upon the slate, or, leave it 24 hours for the rats to eat. This kills them. Keep the mixture from dogs, cats, or other animals, and from children.

Razor, to Sharpen.—The simplest method of sharpening a razor is to put it for half an hour in water to which has been added one twentieth of its weight of muriatic or sulphuric acid, and after a few hours, set it on a hone. The acid acts as a whetstone, by corroding the the whole surface uniformly, so that nothing further than a smooth polish is necessary.

Razor, to Smooth.—Pass the razor on the inside of your hand, first warming it before the fire. Or, use the strap of a soldier's knapsack, or calf leather, on which some fine black lead has been rubbed and consolidated to a slight surface.

Razor Strop, and Paste.—It may be made of rough calf leather, two or three inches broad, or of the strap of a soldier's knap-sack. Upon it spread powdered oxalic acid and candle snuffs, with a little tallow. —Or spread upon it crocus martis and fine tallow.—Or, emery ground as fine as possible, mixed with spermaceti or fine tallow.—Or, glue, ½ oz.; molasses, ¼ oz.; steep the glue in water to soften it, and then boil both together for a few minutes, and crocus martis, or fine emery powder, and then spread on the leather. When you use it apply first a drop or two of sweet oil.

Hints Upon Spelling.—The following rules will be found of great assistance in writing, because they relate to a class of words about the spelling of which doubt and hesitation are frequently felt:

All words of one syllable ending in *l*, with a single vowel before it, have double *l* at the close: as, *mill, sell.*

All words of one syllable ending in *l*, with a double vowel before it, have one *l* only at the close: as *mail sail.*

Words of one syllable ending in *l*, when compounded, retain but one *l* each: as *fulfil, skilful.*

Words of more than one syllable ending in *l* have one *l* only at the close: as, *delightful, faithful*; except *befall, downfall, recall, unwell,* etc.

All derivatives from words ending in *l* have one *l* only: as *equality*, from *equal*; *fulness*, from *full*; except they end in *er* or *ly*: as, *mill, miller*; *full, fully.*

All participles in *ing* from verbs ending in *e* lose the *e* final: as, *have, having; amuse, amusing;* unless they come from verbs ending in double *e*, and then they retain both: as, *see, seeing; agree, agreeing.*

All adverbs in *ly* and nouns in *ment* retain the *e* final of the primitives: as, *brave, bravely; refine, refinement*; except *acknowledgment, judgment*, etc.

All derivatives from words ending in *er*, retain the *e* before the *r*: as, *refer, reference*; except *hindrance*, from *hinder; remembrance*, from *remember; disastrous* from *disaster; monstrous* from *monster; wondrous* from *wonder; cumbrous* from *cumber*, etc.

Compound words, if both end not in *l*, retain their primitive parts entire; as, *millstone, changeable, raceless*; except *always, also, deplorable, although, almost, admirable*, etc.

All one-syllables ending a consonant, with a single vowel before it, double that consonant in derivatives: as, *sin, sinner; ship, shipping; big, bigger; glad, gladder*, etc.

One-syllables ending in a consonant, with a double vowel before it, do not doubt the consonant in derivatives: as, *sleep, sleepy; troop, trooper.*

All words of more than one syllable ending in a single consonant, preceded by a single vowel, and accented on the last syllable, double that consonant in derivatives: as, *commit, committee; compel, compelled; appal, appalling; distil, distiller.*

Nouns of one syllable ending in *y*, preceded by a consonant, change *y* into *ies* in the plural; and verbs ending in *y* preceded by a consonant, change *y* into *ies* in the third person singular of the present tense, and into *ied* in the past tense and past participle; as, *fly, flies; I apply, he applies; we reply, we replied, or have replied.* If the *y* be pre-

ceded by a vowel, this rule is not applicable: as, *key, keys; I play, he plays;* we have *enjoyed* ourselves.

Compound words whose primitive end in *y* change *y* into *i*: as, *beauty, beautiful; lovely, loveliness.*

Weights and Measures.

BUSHELS.	LBS.	BUSHELS.	LBS.
Wheat	60	Sweet Potatoes	60
Peas	60	Timothy Seed	44
Rye	59	Blue Grass Seed	45
Oats	32	Dried Peaches	38
Barley	47	Dried Apples	24
White Beans	60	Buckwheat	48
Castor Beans	46	Onions	57
Clover-Seed	60	Salt	50
Flax-Seed	56	Bran	20
Shelled Corn	56	Turnips	55
Corn in the ear	70	Corn-Meal	48
Irish Potatoes	60	Fine Salt	55

Windsor Soap is merely the best white soap melted, and scented with oil of carraway, and put into moulds.

Signs of the Weather—Dew.—If the dew lies plentifully on the grass after a fair day, it is a sign of another fair day. If not, and there is no wind, rain must follow. A red evening portends fine weather, but if it spread too far upwards from the horizon in the evening, and especially in the morning, it foretells wind or rain, or both. When the sky, in rainy weather, is tinged with sea green, the rain will increase; if with deep blue, it will be showery.

Clouds.—Previous to much rain falling, the clouds grow bigger and increase very fast, especially before thunder. When the clouds are formed like fleeces but dense in the middle and bright towards the edges, with the sky bright, they are signs of a frost, with hail, snow, or rain. If clouds form high in air, in thin white trains like locks of wool, they portend wind, and probably rain. When a general cloudiness covers the sky, and small black fragments of clouds fly underneath, they are a sure sign of rain, and probably it will be lasting. Two currents of clouds always portend rain, and, in summer, thunder.

Heavenly Bodies.—A haziness in the air, which fades the sun's light, and makes the orb appear whitish, or ill-defined—or at night, if the moon and stars grow dim, and a ring encircles the former, rain will follow. If the sun's rays appear like Moses' horns—if white at setting, or shorn of his rays, or if he goes down into a bank of clouds in the horizon, bad weather is to be expected. If the moon looks pale and dim, we expect rain; if red, wind; and if of her natural colour, with a clear sky, fair weather. If the moon is rainy throughout, it will clear at the change, and, perhaps, the rain return a few days after. If fair throughout, and rain at the change, the fair weather will probably return on the fourth or fifth day.

Weather Precautions.—If the weather appears doubtful, always take the precaution of having an umbrella when you go out, particularly in going to church; you thereby avoid incurring one of three disagreeables; in the first place, the chance of getting wet—or encroaching under a friend's umbrella—or being under the necessity of borrowing one, consequently involving the trouble of returning it, and possibly (as is the case in nine times out of ten) inconveniencing your friend by neglecting to do so.

Rules for Administering Medicines, having Reference to Age and Sex.—For an adult (a person of 40 years), the dose of common medicines is allowed about 1 drachm, 60 grains.

Those at	20	years,	⅔	"	40	"
"	13	"	½	"	30	"
"	7	"	⅓	"	20	"
"	4	"	¼	"	15	"
"	3	"	⅙	"	10	"
"	2	"	⅛	"	7 to 8	"
"	1	"	¹⁄₁₂	"	5	"

For babes, under 1 year, the dose should go down by *months*, at about the same rate as by *years* for those over a year.

Again, for persons in advanced life, say from 60 years, the dose must begin to lessen about 5 grains, and from that on, 5 grains for each additional 10 years. Females, however, need a little less, generally, than males.

The above rules hold good in all medicines, except castor oil, the proportion of which cannot be reduced so *much*, and opium and its various preparations, which must be reduced, generally, in a little *greater* proportion.

Explanation of Medical Abbreviations, Apothecaries' Weights and Measures.—

One pound	(lb.)	contains	12 ounces.
One ounce	(oz.)	"	8 drachms.
One drachm	(dr.)	"	3 scruples.
One scruple	(scr.)	"	20 grains, (gr.)

LIQUID MEASURE.

One pint	contains	16 fluid ozs., (4 gills.)
One ounce	"	8 " drs., (¼ gill.)
One table-spoon	"	about ½ a fluid ounce.
One tea-spoon	"	" 1 fluid drachm.
Sixty drops make		" 1 tea-spoon.

Whenever a tea, or table-spoon, is mentioned, it means the same as it would to say spoonful; the same of cup, in fluid measures; but in dry measures, where a spoon or spoonful is mentioned, the design is that the spoon should be taken up moderately rounding, unless otherwise mentioned.

COLORING DEPARTMENT

REMARKS.—It may be necessary to remark, and I do so here, once for all, that every article to be dyed, as well as everything *to* be used about dyeing, should be perfectly clean.

In the next place, the article to be dyed should be well scoured in soap, and then the soap rinsed out. It is also an advantage to dip the article you wish to dye into water, just before putting it into the alum or other preparation; for the neglect of this precaution it is nothing uncommon to have the goods or yarn spotted. *Soft* water should always be used, if possible, and sufficient to cover the goods handsomely.

As soon as an article is dyed it should be aired a little, then well rinsed, and afterwards hung up to dry.

When dyeing or scouring silk, or merino dresses, care should be taken not to wring them, for this has a tendency to wrinkle and break the silk.

In putting dresses and shawls out to dry, that have been dyed, they should be hung up by the edge so as to dry evenly.

Great confidence may be placed in these coloring recipes, as the author has had them revised by Mr. Storms, of this city, who has been in the business over thirty years.

COLORS ON WOOLEN GOODS.—1. Chrome Black—Superior to Any in Use.—For 5 lbs. of goods—blue vitriol, 6 ozs.; boil it a few minutes, then dip the goods ¾ of an hour, airing often; take out the goods, and make a dye with logwood, 3 lbs.; boil ½ hour; dip ¾ of an hour and air the goods, and dip ¾ of an hour more. Wash in strong suds.

N. B.—This will not impart any of its color in fulling, nor fade by exposure to the sun.

2. Black on Wool—For Mixtures.—For 10 lbs. of wool—Bichromate of potash, 4 ozs.; ground argal, 3 ozs.; boil together and put in the wool; stir well and let it remain in the dye 4 hours. Then take out the wool, rinse it slightly in clear water; then make a new dye into which put logwood, 3½ lbs. Boil 1 hour and add chamber-lye, 1 pt., and let the wool lie in all night. Wash in clear water.

3. Steel Mix—Dark.—Black wool—It may be natural or colored, 10 lbs.; white wool, 1½ lbs. Mix evenly together, and it will be beautiful.

4. Snuff Brown—Dark, for Cloth or Wool.—For 5 lbs. goods—camwood, 1 lb.; boil it 15 minutes, then dip the goods for ¾ of an hour; take out the goods, and add to the dye, fustic, 2½ lbs.; boil 10 minutes, and dip the goods ¾ of an hour; then add blue vitriol, 1 oz.; copperas, 4 ozs.; dip again ½ hour; if not dark enough, add more copperas. It is dark and permanent.

5. Wine Color.—For 5 lbs. goods—Camwood, 2 lbs.; boil 15 minutes, and dip the goods ½ hour; boil again and dip ½ hour; then

darken with blue vitriol, 1½ ozs.; if not dark enough, add copperas, ½ oz.

6. Madder Red.—To each lb. of goods—Alum, 5 ozs.; red, or cream-of-tartar, 1 oz.; put in the goods and bring your kettle to a boil for ½ hour; then air them and boil ½ hour longer; then empty your kettle and fill with clean water; put in bran, 1 peck; make it milk-warm and let it stand until the bran rises, then skim off the bran and put in madder, ½ lb.; put in your goods and heat slowly until it boils and is done. Wash in strong suds.

7. Green—On Wool or Silk, with Oak Bark.—Make a strong yellow dye of yellow oak and hickory bark, in equal quantities. Add the extract of indigo or chemic (which see), 1 table-spoon at a time, until you get the shade of color desired. Or:

8. Green—With Fustic.—For each lb. of goods—Fustic, 1 lb.; with alum, 3½ ozs. Steep until the strength is out, and soak the goods therein until a good yellow is obtained; then remove the chips, and add extract of indigo or chemic, 1 table-spoon at a time, until the color suits.

9. Blue—Quick Process.—For 2 lbs. of goods—Alum, 5 ozs.; cream-of-tartar, 3 ozs.; boil the goods in this for one hour; then throw the goods into warm water, which has more or less of the extract of indigo in it, according to the depth of color desired, and boil again until it suits, adding more of the blue if needed. It is quick and permanent.

10. Stocking Yarn or Wool, to Color—Between a Blue and a Purple.—For 5 lbs. of wool—Bi-chromate of potash, 1 oz.; alum, 2 ozs.; dissolve them and bring the water to a boil, putting in the wool and boiling 1 hour; then throw away the dye and make another dye with logwood chips, 1 lb., or extract of logwood, 2½ ozs., and boil one hour. This also works very prettily on silk.

N. B.—Whenever you make a dye with logwood chips, either boil the chips ½ hour and pour off the dye, or tie up the chips in a bag and boil with the wool or other goods; or take 2½ ozs. of the extract in place of 1 lb. of the chips, is less trouble and generally the better plan. In the above recipe, the more logwood that is used, the darker will be the shade.

11. Scarlet, with Cochineal—For Yarn or Cloth.—For 1 lb. of goods—Cream-of-tartar, ½ oz.; cochineal, well pulverized, ½ oz.; muriate of tin, 2½ ozs.; then boil up the dye and enter the goods; work them briskly for 10 or 15 minutes, after which boil 1½ hours, stirring the goods slowly while boiling; wash in clear water and dry in the shade.

12. Pink.—For 3 lbs. of goods—Alum, 3 ozs.; boil and dip the goods 1 hour; then add to the dye cream-of-tartar, 4 ozs; cochineal, well pulverized, 1 oz.; boil well and dip the goods while boiling, until the color suits.

13. Orange.—For 5 lbs. goods—Muriate of tin, 6 table-spoons; argal, 4 ozs.; boil and dip 1 hour; then add to the dye fustic, 2½ lbs.; boil 10 minutes, and dip ½ hour, and add again to the dye, madder, 1 tea-cup; dip again ½ hour.

N. B.—Cochineal in place of madder makes a much brighter color, which should be added in small quantities until pleased. About 2 ozs.

14. Lac Red.—For 5 lbs. goods—Argal, 10 ozs.; boil a few minutes; then mix fine ground lac, 1 lb., with muriate of tin, 1½ lbs., and let them stand 2 or 3 hours; then add half of the lac to the argal

dye, and dip ½ hour; then add the balance of the lac and dip again 1 hour; keep the dye at a boiling heat, until the last half-hour, when the dye may be cooled off.

15. Purple.—For 5 lbs. goods—Cream-of-tartar, 4 ozs.; alum, 6 ozs.; cochineal, well pulverized, 2 ozs.; muriate of tin, ½ tea-cup. Boil the cream-of-tartar, alum, and tin, 15 minutes; then put in the cochineal and boil 5 minutes; dip the goods 2 hours; then make a new dye with alum, 4 ozs.; Brazil wood, 6 ozs.; logwood, 14 ozs.; muriate of tin, 1 tea-cup, with a little chemic; work again until pleased.

16. Silver Drab—Light.—For 5 lbs. goods—Alum, 1 small tea-spoon, and logwood about the same amount; boil well together, then dip the goods 1 hour; if not dark enough, add in equal quantities alum and logwood, until suited.

17. Slate, on Woolen or Cotton—With Beech Bark.—Boil the bark in an iron kettle, skim out the chips after it has boiled sufficiently, and then add copperas to set the dye. If you wish it very dark, add more copperas. This is excellent for stockings.

18. Extract of Indigo or Chemic—To Make.—For good chemic or extract of indigo, take oil of vitriol, ½ lb., and stir into it indigo, finely ground, 2 ozs., continuing the stirring at first for ½ hour; now cover over, and stir 3 or 4 times daily for two or three days; then put in a crumb of saleratus and stir it up, and if it foams, put in more and stir, and add as long as it foams; the saleratus neutralizes any excess of acid; then put into a glass vessel and cork up tight. It improves by standing. Druggists keep this prepared.

19. Wool—To Cleanse.—Make a liquid of water, 3 parts, and urine, 1 part; heat it as hot as you can bear the hand in it; then put in the wool, a little at a time, so as not to have it crowd; let it remain in for 15 minutes; take it out over a basket to drain; then rinse in running water, and spread it out to dry; thus proceed in the same liquor; when it gets reduced fill it up in the same proportions, keeping it at hand heat, all the time not using any soap.

20. Dark Colors—To Extract and Insert Light.—This recipe is calculated for carpet rags. In the first place let the rags be washed clean—the black or brown rags can be colored red or purple, at the option of the dyer; to do this, take for every 5 lbs. black or brown rags muriate of tin, ¾ lb.; and the lac, ½ lb.; mixed with the same as for the lac red; dip the goods in this dye 2 hours, boiling ½ of the time; if not red enough, add more tin and lac. The goods can then be made a purple by adding a little logwood; be careful and not get in but a very small handful, as more can be added if not enough. White rags make a beautiful appearance in a carpet, by tying them in the skein and coloring them red, green, or purple; gray rags will take a very good green—the coloring will be in proportion to the darkness of mix.

DURABLE COLORS ON COTTON.—1. Black.—For 5 lbs. goods—Sumac, wood and bark together, 3 lbs.; boil ½ hour, and let the goods steep 12 hours; then dip in lime water ½ hour; then take out the goods and let them drip an hour; now add to the sumac liquor, copperas, 8 ozs., and dip another hour; then run them through the tub of lime water again for 15 minutes; now make a new dye with logwood, 2½ lbs., by boiling 1 hour, and dip again 3 hours; now add bichromate of potash, 2 ozs., to the logwood dye, and dip 1 hour. Wash in clear cold water and dry in the shade. You may say this is doing too much. You cannot get a permanent black on cotton with less labor.

2. Sky Blue.—For 3 lbs. goods—Blue vitriol, 4 ozs.; boil a few minutes; then dip the goods 3 hours, after which pass them through strong lime water. You can make this color a beautiful brown by putting the goods through a solution of prussiate of potash.

3. Lime Water, and Strong Lime Water—For Coloring.—Lime water is made by putting stone lime, 1 lb., and strong lime water, 1½ lbs., into a pail of water. slacking, stirring and letting it stand until it becomes clear, then turn into a tub of water, in which dip the goods.

4. Blue, on Cotton or Linen—With Logwood.—In all cases, if new, they should be boiled in a strong soap-suds or weak lye, and rinsed clean; then for cotton 5 lbs. or linen 3 lbs., take bi-chromate of potash, ¾ lb.; put in the goods and dip 2 hours, then take out and rinse; make a dye with logwood, 4 lbs.; dip in this 1 hour, and let stand in the dye 3 or 4 hours, or till the dye is almost cold; wash out and dry.

5. Blue on Cotton—Without Logwood.—For 5 lbs. of rags—Copperas, 4 ozs.; boil and dip 15 minutes; then dip in strong suds, and back to the dye 2 or 3 times; then make a dye with prussiate of potash, 1 oz.; oil of vitriol, 6 table-spoons; boil 30 minutes and rinse; then dry.

6. Green.—If the cotton is new, boil in weak lye or strong suds; then wash and dry; give the cotton a dip in the home-made blue dye-tub until blue enough is obtained to make the green as dark as required, take out, dry, and rinse the goods a little; then make a dye with fustic, ¾ lb.; logwood, 3 ozs., to each lb. of goods, by boiling the dye one hour; when cooled so as to bear the hand, put in the cotton, move briskly a few minutes, and let lie 1 hour; take out and let it thoroughly drain; dissolve and add to the dye, for each lb. of cotton, blue vitriol, ½ oz., and dip another hour; wring out and let dry in the shade. By adding or diminishing the logwood and fustic, any shade of green may be obtained.

7. Yellow.—For 5 lbs. of goods—Sugar of lead, 7 ozs.; dip the goods 2 hours; make a new dye with bi-chromate of potash, 4 ozs.; dip until the color suits, wring out and dry. If not yellow enough, repeat the operation.

8. Orange.—For 5 lbs. of goods—Sugar of lead, 4 ozs., boil a few minutes, and when a little cool put in the goods; dip 2 hours, wring out; make a new dye with bi-chromate of potash, 8 ozs.; madder, 2 ozs.; dip until it suits; if the color should be too red, take off a small sample and dip it into lime water, when the choice can be taken of the sample dipped in the lime or the original color.

9. Red.—Take muriate of tin, ⅔ of a tea-cup; add sufficient water to cover the goods well, bring it to a boiling heat, putting in the goods 1 hour, stirring often; take out the goods and empty the kettle and put in clean water, with nic-wood, 1 lb., steeping it for ½ hour, at hand heat; then put in the goods and increase the heat for 1 hour, not bringing to a boil at all; air the goods and dip an hour as before; wash without soap.

10. Muriate of Tin—Tin Liquor.—If druggists keep it, it is best to purchase of them already made; but if you prefer, proceed as follows:

Get, at a tinner's shop, block tin; put it in a shovel and melt it. After it is melted, pour it from the height of 4 or 5 feet into a pail of clear water. The object of this is to have the tin in small particles, so that the acid can dissolve it. Take it out of the water and dry it; then put it into a strong glass bottle; pour over it muriatic acid, 12 ozs.; then slowly add sulphuric acid, 8 ozs. The acid should be added about

a table-spoon at a time, at intervals of 5 or 8 minutes, for if you add it too rapidly you run the risk of breaking the bottle by heat. After you have all the acid in, let the bottle stand until the ebullition subsides; then stop it up with a bees-wax or glass stopper, and set it away, and it will keep good for a year or more, or will be fit for use in twenty-four hours.

COLORS ON SILK GOODS.—Green—Very Handsome with Oak Bark.—For 1 lb. of silk—Yellow oak bark, 8 ozs.; boil it ½ hour; turn off the liquor from the bark and add alum, 6 ozs.; let stand until cold; while this dye is being made, color the goods in the blue dye-tub, a light blue; dry and wash; then dip in the alum and bark dye; if it does not take well, warm the dye a little.

2. Green or Yellow—On Silk or Wool, in Five to Fifteen Minutes.—For 5 lbs. of goods—Black oak bark or peach leaves, ½ peck; boil well; then take out the bark or leaves, and add muriate of tin, ½ tea-cup, stirring well; then put in the goods and stir them round, and it will dye a deep yellow in from 5 to 15 minutes, according to the strength of the bark; take out the goods, rinse and dry immediately.

N. B.—For a green, add to the above, extract of indigo or chemic, 1 table-spoon only, at a time, and work the goods 5 minutes, and air; if not sufficiently dark, use the same amount of chemic as before, and work again until it suits.

3. Mulberry.—For 1 lb. of silk—Alum, 4 ozs.; dip 1 hour; wash out, and make a dye with Brazil wood, 1 oz., and logwood, ¼ oz., by boiling together; dip in this ½ hour, then add more Brazil wood and logwood, in equal proportions, until the color is dark enough.

4. Black.—Make a weak dye as you would for black on woolens, work the goods in bi-chromate of potash, at a little below boiling heat, then dip in the logwood in the same way; if colored in the blue vitriol dye, use about the same heat.

5. Spots—To Remove and Prevent when Coloring Black on Silk or Woolen.—N. B. In dying silk or woolen goods, if they should become rusty or spotted, all that is necessary is to make a weak lye, and have it scalding hot, and put your goods in for 15 minutes, or throw some ashes into your dye, and run your goods in it 5 minutes, and they will come out a jet black, and an even color. I will warrant it.—*Storms.*

The reason that spots of brown, or rust, as it is generally called, appear on black cloths, is that these parts take the color faster than the other parts; but I have no doubt Mr. Storms' plan will remove them, for he regretted much to make public the information, which he says is not generally known. And if the precaution, given in our leading remarks on coloring, are heeded, there will be but very little danger of spotting at all.

6. Light Chemic Blue.—For cold water, 1 gal., dissolve alum, ½ table-spoon, in hot water, 1 tea-cup, and add to it; then add chemic, 1 tea-spoon at a time, to obtain the desired color—the more chemic that is used, the darker will be the color.

7. Purple.—For 1 lb. of silk—having first obtained a light blue by dipping in the home-made blue dye-tub, and dried, dip in alum 4 ozs., to sufficient water to cover, when a little warm; if the color is not full enough add a little chemic.

8. Yellow.—For 1 lb. of silk—alum, 3 ozs.; sugar of lead ¾ oz; immerse the goods in the solution over night; take out, drain, and make a new dye with fustic, 1 lb.; dip until the required color is obtained.

N. B.—The yellow or green, for wool, works equally well on silk.

9. Orange.—Take anotta and soda, and add in equal quantities, according to the amount of goods and darkness of the color wanted: Say 1 oz. of each, to each pound of silk, and repeat as desired.

10. Crimson.—For 1 lb. of silk—alum, 3 ozs.; dip at hand-heat 1 hour; take out and drain, while making a new dye, by boiling 10 minutes, cochineal, 3 ozs.; bruised nutgalls, 2 ozs.; and cream of tartar, ½ oz., in one pail of water, when a little cool, begin to dip, raising the heat to a boil, continuing to dip 1 hour; wash and dry.

11. Cinnamon or Brown, on Cotton or Silk.—By a New Process —Very Beautiful.—Give the goods as much color, from a solution of blue vitriol, 2 ozs., to water, 1 gallon, as it will take up in dipping 15 minutes; then run it through lime-water; this will make a beautiful sky-blue, of much durability; it has now to be run through a solution of prussiate of potash. 1 oz., to water, 1 gal.

APPENDIX TO COLORING DEPARTMENT.

BY THE PUBLISHER.

Dyeing.—The filaments from which stuffs of all kinds are fabricated are derived either from the animal or vegetable kingdom. We recognize the former by the property they possess of liberating ammonia on being tested with potash; while the latter afford a liquor having an acid reaction under the same treatment. The animal kingdom furnishes three varieties—silk, wool, and the furs, etc., of various animals; the vegetable kingdom also three—flax, hemp and cotton; all of which require certain preliminary preparations to render them fit for the dyer, which do not come within our province, our space only admitting of a rapid glance at the production of the various colors.

General Observations.—The various shades produced by coloring matters may be classed in one or other of the following groups:

1. Blues; 2. Reds; 3. Yellows—*Simple.*
4. Violets; 5. Orange colors; 6. Greens—*Binary.*
7. Compound colors; 8. Black—*Ternary.*

Some colors adhere at once to the stuff, and are called *substantive colors;* while others require that the material to be dyed should undergo some previous preparation in order to render it permanent. The substances used to fix the coloring matters are called *mordants,* which should possess four qualifications:—1. They should possess an equal affinity for the fibre of the material and the coloring matter. 2. They should be incapable of injuring or destroying either by prolonged action. 3. They should form, with the color, a compound capable of resisting the action of air and water. 4. They should be capable of readily conforming to the various operations of the dyer.

The Mordants.—For the reasons just given, the acetate or tartrate of iron is preferable to the sulphate; and the acetate or tartrate of alumina to alum. *For reds, yellows, green, and pinks,* aluminous mordants are to be used. *For blacks, browns, puces, and violets,* the acetate or tartrate of iron must be employed. *For scarlets,* use a tin mordant, made by dissolving in strong nitric acid one-eighth of its weight of sal-ammoniac, then adding by degrees one-eighth of its weight of tin, and diluting the solution with one-fourth of its weight of water.

Calico, Linen, and Muslin.—*Blue.*—Wash well to remove dressing, and dry; then dip in a strong solution of sulphate of indigo—partly saturated with potash—and hang up. Dry a piece to see if the color is deep enough; if not, dip again. *Saxon Blue.*—Boil the article in alum, and then dip in a strong solution of chemical blue.

Calico, Linen, and Muslin.—*Buff.*—Boil an ounce of anatto in 3 quarts of water, add 2 ounces of potash, stir well, and put in the calico while boiling, and stir well for five minutes; remove and plunge into cold pump water, hang up the articles without wringing, and when almost dry, fold.

Calico, Linen, and Muslin.—*Green.*—Boil the article in an alum mordant, and then in a solution of indigo mixed with any of the yellow dyes, until the proper color is obtained.

Calico, Linen, and Muslin.—*Yellow.*—1. Cut potato tops when in flower, and express the juice; steep articles in this for forty-eight hours. 2. Dip in a strong solution of weld after boiling in an aluminous mordant. Turmeric, fustic, anatto, etc., will answer the same as weld.

Cloth.—*Black.*—Impregnate the material with acetate of iron mordant, and then boil in a decoction of madder and logwood.

Cloth.—*Madder Red.*—Boil the cloth in a weak solution of pearl-ash—an ounce to a gallon of water,—wash, dry, and then steep in a decoction of bruised nutgalls. After drying, it is to be steeped twice in dry alum water, then dried, and boiled in a decoction made of three-quarters of a pound of madder to every pound of the article. It should then be taken out and dried, and steeped in a second bath in the same manner. When dyed, the articles should be washed in warm soap and water, to remove a dun-colored matter given out by the madder.

Black for Worsted or Woolen.—Water, 3 gals.; bichromate of potass, ¾ oz. Boil the goods in this 40 minutes; then wash in cold water. Then take 3 gals. of water, add 9 ozs. of logwood, 3 ozs. of fustic, and one or two drops of D. O. V. or Double Oil of Vitriol; boil the goods 40 minutes, and wash out in cold water. This will dye from 1 to 2 lbs. of cloth, or a lady's dress, if of a dark color, as brown, claret, etc.

All colored dresses with cotton warps should be previously steeped one hour in sumach liquor; and then saddened in 3 gals. of clean water, with one cupful of nitrate of iron for 30 minutes, then it must be well washed and dyed as first stated.

Black for Silk.—Dye the same as Black for Worsted; but previously steep the silk in the following liquor: Scald 4 ozs. of logwood, and ¼ oz. of turmeric in a pint of boiling water. Then add 7 pints of cold water. Steep 30 or 40 minutes; take out, and add 1 oz. of sulphate of iron, (or copperas) dissolved in hot water; steep the silk 30 minutes longer.

Brown for Worsted or Wool.—Water, 3 gals.; bichromate of potass, ¾ oz. Boil the goods in this 40 minutes; wash out in cold water. Then take water, 3 gals.; peachwood, 6 ozs.; turmeric, 2 ozs. Boil the goods in this 40 minutes. Wash out.

Imperial Blue for Silk, Wool, and Worsted.—Water, 1 gal.; sulphuric acid, a wine glass; Imperial Blue, 1 table-spoon, or more, according to the shade required. Put in the silk, worsted, or wool, and boil 10 minutes. Wash in a weak solution of soap lather.

Sky Blue, for Worsted and Woolen.—Water, 1 gal.; sulphuric acid, a wine glass; glauber salts, or crystals, 2 table-spoons; liquid extract of indigo, a tea-spoon; boil the goods about 15 minutes. Rinse in cold water.

Claret for Wool or Worsted.—*A short way of Dyeing the same.*—Water, 8 gals.; cudbear, 12 ozs.; logwood, 4 ozs.; old fustic, 4 ozs.; alum, ½ oz. Boil the goods in it 1 hour. Wash. This will dye from 1 to 2 lbs. of material.

Crimson for Worsted or Wool.—Water, 3 gals.; paste Cochineal, 1 oz.; cream-of-tartar, 1 oz.; nitrate of tin, a wine glass. Boil your goods in this 1 hour. Wash out in cold water. Then in another vessel with 3 gals. of warm water, a cup of ammonia, the whole well mixed. Put in the goods, and work well 15 minutes. For a bluer shade, add more ammonia. Then wash out.

Fawn Drab for Silk.—Hot water, 1 gal.; anotta liquor, a wine glass; 2 ozs. each of sumach and fustic. Add copperas liquor, according to the required shade. Wash out.

It is best to have the copperas liquor in another vessel.

A Dark Drab may be obtained by using a little archil, and extract of indigo.

Flesh Color, for Dyeing Silk.—Boiling water, 1 gal.; put in 1 oz. of white soap, and 1 oz. of pearlash. Mix well; then add a cup of Annotta liquor. Put the silk through several times, and proportion the liquor till you obtain the right shade.

A Salmon Color may be obtained by first passing through the above liquor, and then throngh diluted muriate of tin.

Magenta for Silk, Wool, or Worsted.—Water, 1 gal., heated up to 180 degrees; add Magenta Liquor, 1 table-spoon; stir it well up. This will dye a broad ribbon 4 yards long; or a pair of small stockings; To dye a large quantity of material, add more Magenta Liquor and water. The shade of color may be easily regulated by using more or less. Magenta Pink may be obtained by increased solution.

Mauve for Silk, Wool or Worsted.—Water, 1 gal.; add 1 table-spoon of sulphuric acid; then heat to boiling point. For a very *light Mauve*, add, 1 tea-spoon of Imperial Violet Liquor; boil the same amount of material, as stated under Magenta, about 10 minutes. Rinse in cold water. If the color be too deep, use a little soap in rinsing using warm water.

A Violet Color may be produced by using a table-spoon of Violet Liquor instead of a tea-spoon.

Pea-Green for Silk.—To one quart of water, put half a tea-spoon of Picric Acid, and rather more than half a wine glass of sulphuric acid, and a tea-spoon of paste extract of indigo; boil about five minutes, then add water to cool it down to blood heat, or 100 degrees. Put in the silk and work it about twenty minutes. The shade may be varied by adding more or less of the Picric Acid, or extract of indigo; if more of either be added, boil separately in a little water, and add to the previous liquor.

Pea-Green for Worsted.—Use the same materials as the aforesaid, but boil all the time in 1 gal. of water for about 20 or 30 minutes.

A Darker Green may be obtained by using a larger quantity of material.

Plum Color for Worsted, Silk, or Cotton.—Water, 1 gal.; sulphuric acid, a tea-spoon; glauber salts, or common Dyer's crystals, 2 table-spoons; violet liquor, a table-spoon; magenta liquor, ½ a table-spoon. Boil the article (silk, wool, or worsted,) about 10 minutes.

Cotton should be dyed the above colors separately, and by first running them through weak Gall Liquor, and weak double muriate of tin. Then wash well, and work in the aforesaid liquor, according to color and shade. The liquor should be cold for *Cotton.*

Scarlet on Worsted or Wool.—Water, 3 gals.; dry cochineal, 2 ozs.; cream-of-tartar, 1 oz.; nitrate of tin, a wine glass; boil the goods 1 hour. To give the goods a yellower hue, add a little young fustic. Wash out as before.

Yellow for Dyeing Silk.—Proceed the same as in dyeing Pea-Green, omitting the extract of indigo, and using oxalic tin instead of sulphuric acid.

To Prepare Annotta.—Into 2 gals. of water put 1 lb. of Annota 4 ozs. of pearlash, and 2 ozs. of soft soap, and apply heat, stirring until the whole is dissolved; when convenient it is best to boil the solution.

To Prepare Catechu.—To 7 or 8 gals. of water put 1 lb. of catechu, and boil till it is all dissolved; then add 2 ozs. of sulphate of copper. Stir, and it is ready for use.

Recipe for Dyeing Cotton.—In the following recipes the quantities are given for 10 lbs. of cotton, whether yarn or cloth:

Common Black.—Steep the goods in a decoction of 3 lbs. of sumach while it is hot and let them lie over night, wring out and work them for 10 minutes through lime water, then work for half an hour through a solution of 2 lbs. of copperas, they may be either washed from this or worked again through lime water for 10 minutes; then work them half an hour through a warm decoction of 3 lbs. of logwood, adding ½ pint chamber lye; before entering the goods lift and raise with 2 ozs. of copperas in solution. Work 10 minutes, then wash and dry.

Jet Black.—The goods are dyed in the same manner as in the last recipe, but along with the logwood is added 1 lb. fustic.

Catechu Brown.—Work the goods at a boiling heat for 2 hours in 2 lbs. of catechu, prepared as above; wring out and then work for half an hour in a hot solution of 6 ozs of bichromate of Potassa; wash from this in hot water; if a little soap is added to the wash water the color is improved. Deeper shades of brown may be dyed by repeating the operation.

Catechu Fawn.—Work the goods 15 minutes in hot water containing 2 pints of catechu, prepared as above; wring out and work 15 minutes in hot water containing 1 oz. of bichromate of Potassa in solution; wash and dry.

Common Red.—Make a decoction of 3 lbs. of sumach, and put the goods in at once; let them steep over night; wring out and work for an hour in a mixture of 1 gill red spirits (tin spirits) to every gallon of water; wring out and wash well; then work half an hour in a decoction of 3 lbs. of limawood, and 1 lb. fustic, using this decoction as hot as the hand can bear it; lift and add 1 gill red spirits; then work 15 minutes more; wash and dry.

Scarlet.—For 1 lb. of goods, boil 1¾ ozs. of cream-of-tartar in water in a block tin vessel; add 1¾ ozs. of tin spirits; boil for 3 minutes, then boil the goods in it for 2 hours, drain and let the goods cool; next boil ¼ oz. of cream-of-tartar in some water for a few minutes; add to it ½ oz. of powdered cochineal, boil for 5 minutes, adding gradually 1 oz. tin spirits, stirring well all the time; then put in the goods and dye immediately.

Light Straw.—To a tub of cold water add 4 ozs. of acetate of lead in solution; work the goods in this for 15 minutes, and wring out; then work for 10 minutes in another tub of water, containing 2 ozs. of bichromate of Potassa; wring out and work again in the lead solution 10 minutes; wash and dry.

Annotta Orange.—Heat the annotta solution (see page 598) to about 140 degrees Fahr., work the goods in it about 20 minutes; wring out thoroughly, to economize the liquor; wash in two waters and dry.

Catechu Stone Drab.—Work the goods 15 minutes in hot water, containing 2 pints prepared catechu (see above) lift and add 2 ozs. of copperas in solution; work for 15 minutes and wash in water; then work 10 minutes in a tub of warm water containing a decoction of 2 ozs. of logwood; lift and add ½ oz. of alum; work 10 minutes more; wring out and dry.

Deep Yellow.—To a tub of cold water add 1 lb. of acetate of lead and 1 lb. of nitrate of lead in solution; work the goods in this for 30 minutes and wring out; then to a tub of warm water add 12 ozs. of

bichromate of Potassa, and work the goods in it 15 minutes; expose to the air half an hour; then pass again through both solutions, working them the same time in each as before, and expose to the air for 1 hour; then pass them through the lead solution; wring out, wash and dry; if the color is not deep enough they may be passed through the solutions again as before.

For Woolen Goods, 10 lbs.—Black.—Work 20 minutes in a bath with 8 ozs. camwood; lift and add 8 ozs. copperas; work 20 minutes more, then withdraw the fire from the boiler, and submerge the goods in the liquor over night; then wash out; work 1 hour in another, both containing a decoction of 5 lbs. of logwood and 1 pint chamber lye; lift and add 4 ozs. of copperas; work 30 minutes longer; wash and dry.

Red.—Work for 30 minutes in a bath made up with 1 oz. chrome and 1 oz. alum; wash in cold water; then work 30 minutes in another bath with 3 lbs. of peachwood or limawood; lift and add 1 oz. of alum; work 20 minutes; wash and dry.

To Make up a Blue Vat.—Take 1 lb. of indigo and grind in water until no grittiness can be felt between the fingers; put this into a deep vessel, (casks are generally used), with about 12 gals. of water; then add 2 lbs. of copperas and 3 lbs. newly slacked lime, and stir 15 minutes; stir every 2 hours for 5 or 6 times; toward the end the liquor should be of a greenish yellow color, with blackish veins through it and a rich froth of indigo on the surface; after standing 8 hours to settle the vat is fit to use.

INTEREST DEPARTMENT.

LEGAL RATES.—SIX per cent. is the legal rate in the States of Maine, New Hampshire, Vermont, Rhode Island, Connecticut, Delaware, Maryland, Pennsylvania, Virginia, North Carolina, Florida, Mississippi, Tennessee, Arkansas, Kentucky, Ohio, Indiana, Illinois, Missouri, Iowa, and New Jersey, except in Hudson and Essex Counties, and the City of Patterson, where seven per cent is allowed when either of the parties reside therein.

SEVEN per cent is the legal rate in Michigan, New York, Minnesota, Wisconsin, South Carolina, and Georgia.

TEN per cent. is the legal rate in California, *eight* per cent. in Alabama and Texas, and *five* per cent. in Louisana.

TEN per cent. may be contracted for in Michigan, Ohio, Illinois, Missouri, Iowa, and Arkansas.

TWELVE per cent. may be contracted for in Texas and Wisconsin, eight per cent. in Florida, and any amount agreed upon can be collected in California and Minnesota.

Only legal rates can be collected in Illinois, Texas, Maryland, Rhode Island, Maine, Vermont, Connecticut, Mississippi, and Louisiana.

Illegal interest can be collected back in Iowa, Indiana, Maine, Vermont, and Connecticut.

Usurious contracts are void in Arkansas, New York, and New Jersey.

If illegal interest is taken in New Hampshire and Wisconsin, three times legal rate is forfeited.

In South Carolina, Florida, and Alabama, interest only is forfeited.

Usurious excesses are void in Kentucky, Michigan, and Ohio.

Virginia and North Carolina void the contract and double the debt, half to the informer and half to the State.

In Connecticut usurious contracts, if collected, can be recovered back, one-half to the State and the balance to the informer.

Delaware allows usurious contracts to be collected, half to the State and half to the prosecutor.

If more than lawful rates are obtained in Missouri, ten per cent. is forfeited to the common school fund.

Legal interest is what can be collected where no rate is specified; lawful is what may be contracted for; and usurious is more than lawful.

EXPLANATION OF INTEREST TABLES.—To obtain the interest on $1109.00, for 1 year 4 months and 27 days, at 6 per cent.:

Turn to the table and you will find the *time* in the left hand column, and *amounts* at the heads of other columns; the sum sought is found at the meeting of the lines to the *right* of the time, and *down* from the amount, as follows:

Interest	on	$1000,	1 year,	at 6 per cent.,	$60 00
"	"	100,	"	"	6 00
"	"	9,	"	"	54
"	"	1000,	4 months,	"	20 00
"	"	100,	"	"	2 00
"	"	9,	"	"	18
"	"	1000,	27 days,	"	4 50
"	"	100,	"	"	45
"	"	9,	"	"	04
				Whole sum sought	$68 71

Proceed in the same way for other amounts, or time, or rate per cent. For more than 1 year multiply the interest of one year by the number of years; if for $20, $30, etc., multiply the interest on $10 by 2, 3, etc., and so on for hundreds and thousands. To find interest at 5 per cent., take one-half of 10 per cent. rate; for 12 per cent. multiply 6 per cent. rate by 2, and so on for other rates.

INTEREST TABLE.—Six Per Cent.

TIME.	$1	$2	$3	$4	$5	$6	$7	$8	$9	$10	$100	$1,000
1 Day.	0	0	0	0	0	0	0	0	0	0	2	17
2 "	0	0	0	0	0	0	0	0	0	0	3	33
3 "	0	0	0	0	0	0	0	0	0	1	5	50
4 "	0	0	0	0	0	0	0	1	1	1	7	67
5 "	0	0	0	0	0	1	1	1	1	1	8	83
6 "	0	0	0	0	1	1	1	1	1	1	10	1 00
7 "	0	0	0	0	1	1	1	1	1	1	12	1 17
8 "	0	0	0	1	1	1	1	1	1	1	13	1 33
9 "	0	0	0	1	1	1	1	1	1	2	15	1 50
10 "	0	0	1	1	1	1	1	1	2	2	17	1 67
11 "	0	0	1	1	1	1	1	1	2	2	18	1 83
12 "	0	0	1	1	1	1	1	2	2	2	20	2 00
13 "	0	0	1	1	1	1	2	2	2	2	22	2 17
14 "	0	0	1	1	1	1	2	2	2	2	23	2 33
15 "	0	1	1	1	1	2	2	2	2	3	25	2 50
16 "	0	1	1	1	1	2	2	2	2	3	27	2 67
17 "	0	1	1	1	1	2	2	2	3	3	28	2 83
18 "	0	1	1	1	2	2	2	2	3	3	30	3 00
19 "	0	1	1	1	2	2	2	3	3	3	32	3 17
20 "	0	1	1	1	2	2	2	3	3	3	33	3 33
21 "	0	1	1	1	2	2	2	3	3	4	35	3 50
22 "	0	1	1	1	2	2	3	3	3	4	37	3 67
23 "	0	1	1	2	2	2	3	3	3	4	38	3 83
24 "	0	1	1	2	2	2	3	3	4	4	40	4 00
25 "	0	1	1	2	2	3	3	3	4	4	42	4 17
26 "	0	1	1	2	2	3	3	3	4	4	43	4 33
27 "	0	1	1	2	2	3	3	4	4	5	45	4 50
28 "	0	1	1	2	2	3	3	4	4	5	47	4 67
29 "	0	1	1	2	2	3	3	4	4	5	48	4 83
1 M'nth	1	1	2	2	3	3	4	4	5	5	50	5 00
2 "	1	2	3	4	5	6	7	8	9	10	1 00	10 00
3 "	2	3	5	6	8	9	11	12	14	15	1 50	15 00
4 "	2	4	6	8	10	12	14	16	18	20	2 00	20 00
5 "	3	5	8	10	13	15	18	20	23	25	2 50	25 00
6 "	3	6	9	12	15	18	21	24	27	30	3 00	30 00
7 "	4	7	11	14	18	21	25	28	32	35	3 50	35 00
8 "	4	8	12	16	20	24	28	32	36	40	4 00	40 00
9 "	5	9	14	18	23	27	32	36	41	45	4 50	45 00
10 "	5	10	15	20	25	30	35	40	45	50	5 00	50 00
11 "	6	11	17	22	28	33	39	44	50	55	5 50	55 00
1 Year.	6	12	18	24	30	36	42	48	54	60	6 00	60 00

INTEREST TABLE.—Seven Per Cent.

TIME.	$1	$2	$3	$4	$5	$6	$7	$8	$9	$10	$100	$1,000
1 Day.	0	0	0	0	0	0	0	0	0	0	2	19
2 "	0	0	0	0	0	0	0	0	0	0	4	39
3 "	0	0	0	0	0	0	0	0	1	1	6	58
4 "	0	0	0	0	0	0	1	1	1	1	8	78
5 "	0	0	0	0	0	1	1	1	1	1	10	97
6 "	0	0	0	0	1	1	1	1	1	1	12	1 17
7 "	0	0	0	1	1	1	1	1	1	1	14	1 36
8 "	0	0	0	1	1	1	1	1	1	2	16	1 56
9 "	0	0	1	1	1	1	1	1	2	2	18	1 75
10 "	0	0	1	1	1	1	1	2	2	2	19	1 94
11 "	0	0	1	1	1	1	1	2	2	2	21	2 14
12 "	0	0	1	1	1	1	2	2	2	2	23	2 33
13 "	0	1	1	1	1	2	2	2	2	3	25	2 53
14 "	0	1	1	1	1	2	2	2	2	3	27	2 72
15 "	0	1	1	1	1	2	2	2	3	3	29	2 92
16 "	0	1	1	1	2	2	2	2	3	3	31	3 11
17 "	0	1	1	1	2	2	2	3	3	3	33	3 31
18 "	0	1	1	1	2	2	2	3	3	4	35	3 50
19 "	0	1	1	1	2	2	3	3	3	4	37	3 69
20 "	0	1	1	2	2	2	3	3	4	4	39	3 89
21 "	0	1	1	2	2	2	3	3	4	4	41	4 08
22 "	0	1	1	2	2	3	3	3	4	4	43	4 28
23 "	0	1	1	2	2	3	3	4	4	4	45	4 47
24 "	0	1	1	2	2	3	3	4	4	5	47	4 67
25 "	0	1	1	2	2	3	3	4	4	5	49	4 86
26 "	1	1	2	2	3	3	4	4	5	5	51	5 06
27 "	1	1	2	2	3	3	4	4	5	5	53	5 25
28 "	1	1	2	2	3	3	4	4	5	5	54	5 44
29 "	1	1	2	2	3	3	4	5	5	6	56	5 64
1 Month	1	1	2	2	3	4	4	5	5	6	58	5 83
2 "	1	2	4	5	6	7	8	9	11	12	1 17	11 67
3 "	2	4	5	7	9	11	12	14	16	18	1 75	17 50
4 "	2	5	7	9	12	14	16	19	21	23	2 33	23 33
5 "	3	6	9	12	15	18	20	23	26	29	2 92	29 17
6 "	4	7	11	14	18	21	25	28	32	35	3 50	35 00
7 "	4	8	12	16	20	25	29	33	37	41	4 08	40 83
8 "	5	9	14	17	23	28	33	37	42	47	4 67	46 67
9 "	5	11	16	21	26	32	37	42	47	53	5 25	52 50
10 "	6	12	18	23	29	35	41	47	53	58	5 83	58 33
11 "	6	13	19	26	32	39	45	51	58	64	6 42	64 17
1 Year.	7	14	21	28	35	42	49	56	63	70	7 00	70 00

INTEREST TABLE.—Eight Per Cent.

TIME.	$1	$2	$3	$4	$5	$6	$7	$8	$9	$10	$100	$1,000
1 Day.	0	0	0	0	0	0	0	0	0	0	2	22
2 "	0	0	0	0	0	0	0	0	0	0	2	44
3 "	0	0	0	0	0	0	0	1	1	1	2	67
4 "	0	0	0	0	0	1	1	1	1	1	2	89
5 "	0	0	0	0	1	1	1	1	1	1	2	11
6 "	0	0	0	1	1	1	1	1	1	1	2	13
7 "	0	0	0	1	1	1	1	1	1	1	2	15
8 "	0	0	1	1	1	1	1	1	2	2	2	17
9 "	0	0	1	1	1	1	1	2	2	2	2	18
10 "	0	0	1	1	1	1	2	2	2	2	2	20
11 "	0	0	1	1	1	1	2	2	2	2	2	22
12 "	0	1	1	1	1	2	2	2	2	2	2	24
13 "	0	1	1	1	1	2	2	2	3	3	2	27
14 "	0	1	1	1	2	2	2	2	3	3	2	29
15 "	0	1	1	1	2	2	2	3	3	3	2	31
16 "	0	1	1	1	2	2	2	3	3	3	3	33
17 "	0	1	1	2	2	2	3	3	3	4	3	36
18 "	0	1	1	2	2	2	3	3	4	4	3	38
19 "	0	1	1	2	2	3	3	3	4	4	3	40
20 "	0	1	1	2	2	3	3	4	4	4	3	42
21 "	0	1	1	2	2	3	3	4	4	4	4	44
22 "	0	1	1	2	2	3	3	4	4	5	4	47
23 "	1	1	2	2	3	3	4	4	4	5	4	49
24 "	1	1	2	2	3	3	4	4	5	5	4	51
25 "	1	1	2	2	3	3	4	4	5	5	4	53
26 "	1	1	2	2	3	3	4	5	5	5	4	56
27 "	1	1	2	2	3	4	4	5	5	6	4	58
28 "	1	1	2	2	3	4	4	5	6	6	4	60
29 "	1	1	2	3	3	4	5	5	6	6	4	62
1 M'nth	1	1	2	3	3	4	5	5	6	6	5	64
2 "	1	3	4	5	7	8	9	11	12	13	10	67
3 "	2	4	6	8	10	12	14	16	18	20	15	1 33
4 "	3	5	8	11	13	16	19	21	24	27	20	2 00
5 "	3	7	10	13	17	20	23	27	30	33	25	2 67
6 "	4	8	12	16	20	24	28	32	36	40	30	3 33
7 "	5	9	14	19	23	28	33	37	42	47	35	4 00
8 "	5	11	16	21	27	32	37	43	48	53	40	4 67
9 "	6	12	18	24	30	36	42	48	54	60	45	5 33
10 "	7	13	20	27	33	40	47	53	60	67	50	6 00
11 "	7	15	22	29	37	44	51	59	66	73	55	6 67
1 Year.	8	16	24	32	40	48	56	64	72	80	60	7 33
												8 00

INTEREST TABLE.—Nine Per Cent.

TIME.	$1	$2	$3	$4	$5	$6	$7	$8	$9	$10	$100	$1,000
1 Day.	0	0	0	0	0	0	0	0	0	0	3	25
2 "	0	0	0	0	0	0	0	0	0	1	5	50
3 "	0	0	0	0	0	0	1	1	1	1	8	75
4 "	0	0	0	0	1	1	1	1	1	1	10	1 00
5 "	0	0	0	1	1	1	1	1	1	1	13	1 25
6 "	0	0	0	1	1	1	1	1	1	2	15	1 50
7 "	0	0	1	1	1	1	1	1	2	2	18	1 75
8 "	0	0	1	1	1	1	1	2	2	2	20	2 00
9 "	0	0	1	1	1	1	2	2	2	2	23	2 25
10 "	0	1	1	1	1	2	2	2	2	3	25	2 50
11 "	0	1	1	1	1	2	2	2	2	3	28	2 75
12 "	0	1	1	1	2	2	2	2	3	3	30	3 00
13 "	0	1	1	1	2	2	2	3	3	3	33	3 25
14 "	0	1	1	1	2	2	2	3	3	4	35	3 50
15 "	0	1	1	2	2	2	3	3	3	4	38	3 75
16 "	0	1	1	2	2	2	3	3	4	4	40	4 00
17 "	0	1	1	2	2	3	3	3	4	4	43	4 25
18 "	0	1	1	2	2	3	3	4	4	5	45	4 50
19 "	0	1	1	2	2	3	3	4	4	5	48	4 75
20 "	1	1	2	2	3	3	4	4	5	5	50	5 00
21 "	1	1	2	2	3	3	4	4	5	5	53	5 25
22 "	1	1	2	2	3	3	4	4	5	6	55	5 50
23 "	1	1	2	2	3	3	4	5	5	6	58	5 75
24 "	1	1	2	2	3	4	4	5	5	6	60	6 00
25 "	1	1	2	3	3	4	4	5	6	6	63	6 25
26 "	1	1	2	3	3	4	5	5	6	7	65	6 50
27 "	1	1	2	3	3	4	5	5	6	7	68	6 75
28 "	1	1	2	3	4	4	5	6	6	7	70	7 00
29 "	1	1	2	3	4	4	5	6	7	7	73	7 25
1 M'nth	1	2	2	3	4	5	5	6	7	8	75	7 50
2 "	2	3	5	6	8	9	11	12	14	15	1 50	15 00
3 "	2	5	7	9	11	14	16	18	20	23	2 25	22 50
4 "	3	6	9	12	15	18	21	24	27	30	3 00	30 00
5 "	4	8	11	15	19	23	26	30	34	38	3 75	37 50
6 "	5	9	14	18	23	27	32	36	41	45	4 50	45 00
7 "	5	11	16	21	26	32	37	42	47	53	5 25	52 50
8 "	6	12	18	24	30	36	42	48	54	60	6 00	60 00
9 "	7	14	20	27	34	41	47	54	61	68	6 75	67 50
10 "	8	15	23	30	38	45	53	60	68	75	7 50	75 00
11 "	8	17	25	33	41	50	58	66	74	83	8 25	82 50
1 Year.	9	18	27	36	45	54	63	72	81	90	9 00	90 00

INTEREST TABLE.—Ten Per Cent.

TIME.	$1	$2	$3	$4	$5	$6	$7	$8	$9	$10	$1 00	$1,000
1 Day.	0	0	0	0	0	0	0	0	0	0	3	28
2 "	0	0	0	0	0	0	0	0	1	1	6	56
3 "	0	0	0	0	0	1	1	1	1	1	8	83
4 "	0	0	0	0	1	1	1	1	1	1	11	1 11
5 "	0	0	0	1	1	1	1	1	1	1	14	1 39
6 "	0	0	1	1	1	1	1	1	2	2	17	1 67
7 "	0	0	1	1	1	1	1	2	2	2	19	1 94
8 "	0	0	1	1	1	1	2	2	2	2	22	2 22
9 "	0	1	1	1	1	2	2	2	2	3	25	2 50
10 "	0	1	1	1	1	2	2	2	3	3	28	2 78
11 "	0	1	1	1	2	2	2	2	3	3	31	3 06
12 "	0	1	1	1	2	2	2	3	3	3	33	3 33
13 "	0	1	1	1	2	2	3	3	3	4	36	3 61
14 "	0	1	1	2	2	2	3	3	4	4	39	3 89
15 "	0	1	1	2	2	3	3	3	4	4	42	4 17
16 "	0	1	1	2	2	3	3	4	4	4	44	4 44
17 "	0	1	1	2	2	3	3	4	4	5	47	4 72
18 "	1	1	2	2	3	3	4	4	5	5	50	5 00
19 "	1	1	2	2	3	3	4	4	5	5	53	5 28
20 "	1	1	2	2	3	3	4	4	5	6	56	5 56
21 "	1	1	2	2	3	4	4	5	5	6	58	5 83
22 "	1	1	2	2	3	4	4	5	6	6	61	6 11
23 "	1	1	2	3	3	4	4	5	6	6	64	6 39
24 "	1	1	2	3	3	4	5	5	6	7	67	6 67
25 "	1	1	2	3	3	4	5	6	6	7	69	6 94
26 "	1	1	2	3	4	4	5	6	7	7	72	7 22
27 "	1	2	2	3	4	5	5	6	7	8	75	7 50
28 "	1	2	2	3	4	5	5	6	7	8	78	7 78
29 "	1	2	2	3	4	5	6	6	7	8	81	8 06
1 M'nth	1	2	3	3	4	5	6	7	8	8	83	8 33
2 "	2	3	5	7	8	10	12	13	15	17	1 67	16 67
3 "	3	5	8	10	15	15	18	20	23	25	2 50	25 00
4 "	3	7	10	13	17	20	23	27	30	33	3 33	33 33
5 "	4	8	14	17	21	25	29	33	38	42	4 17	41 67
6 "	5	10	15	20	25	30	35	40	45	50	5 00	50 00
7 "	6	12	18	23	29	35	41	47	53	58	5 83	58 33
8 "	7	13	20	27	33	40	47	53	60	67	6 67	66 67
9 "	8	15	23	30	38	45	53	60	68	75	7 50	75 00
10 "	8	17	25	33	42	50	58	67	75	83	8 33	83 33
11 "	9	18	28	37	46	55	64	73	83	92	9 17	91 67
1 Year.	10	20	30	40	50	60	70	80	90	1 00	10 00	100 00

EXPLANATION OF TECHNICAL TERMS FOUND IN MEDICAL WORKS.

Abdomen—The lower front part of the body.
Aromatic—Spicy and fragrant drugs; used to prevent griping of drastic purgatives.
Aperient—A gentle laxative or purgative.
Acidity—Sourness. Acids neutralize alkalies.
Alkaline—Having the properties of alkali. Alkalies neutralize acids.
Antacid—Medicines which neutralize acids.
Anti—Being prefixed to any word signifies against.
Antiscorbutic—Alteratives for Scrofula; blood purifiers.
Antisyphilitic—Remedy for Venereal Diseases.
Albus—White, hence whites; fluor albus.
Antisialagogue—Remedy for Salivation.
Antiseptic—That which will prevent putrefaction.
Antiphlogistic—Remedy for fever and inflammation.
Antispasmodic—Remedy for spasms, cramps or convulsions.
Anodyne—A medicine which will allay pain and produce sleepiness.
Alterative—Medicines which will gradually restore healthy action.
Astringent—Medicines which constringe, draw up surfaces with which they come in contact; used in Flooding, Diarrhea, Whites, etc.
Abscess—A cavity containing pus.
Anemia—Without blood, more properly blood without its proportion of iron, which gives it the bright red.
Alvine—Relating to the intestines.
Aliment—Any kind of food.
Alimentary Canal—The entire passage through the whole intestines from mouth to anus; the passage for the aliment.
Albumen—An element found in both animal and vegetable substances; constituting the chief part of the white of eggs.
Antimonial—Medicines containing antimony.
Anus—The external opening of the rectum, lower intestine.
Antiperiodic—That which cures periodic diseases, as Ague, Intermittent Fevers.
Antidote—An opposing medicine, used chiefly against poison.
Adult—Person of full growth.
Aqua—Water.
Aqua Ammonia—Water of Ammonia.
Amenorrhea—Absence of the menses.
Antiemetic—That which will stop vomiting; against emesis.
Arsenic—A metal, the oxide of which is arsenious acid, commonly called ratsbane.
Abortion—A premature birth, or miscarriage.
Abortives—That which will cause abortion.
Abrasion—Bruising the skin.
Acetate—A salt prepared with acetic acid.
Acrid—Irritating biting.
Adhesive—Applied to sticking plasters, and to parts adhering from inflammation.
Balm—Aromatic and fragrant medicine, usually an ointment.
Balsam—Resinous substances, possessing healing properties.
Basilicon—An ointment containing wax, resin, etc.
Belladonna—Nightshade.
Bergamot—Perfume made from the lemon peel.
Bile—A secretion from the liver.
Bilious—An undue amount of bile.
Bi-tartrate of Potash—Cream-of-Tartar.
Blanch—To whiten.
Bowels—Intestines.
Bolus—A large pill.
Bronchia—Branches of the windpipe.
Bronchitis—Inflammation of the bronchial tubes, which lead into the lungs.
Bronchocele—Enlargement of the thyroid gland, enlarged neck.

Butyric Acid—An acid obtained from butter.
Calcium—The metalic basis of lime, (see fluor spar.)
Calamus—Sweet flag.
Calcareous—A substance containing chalk or lime.
Calcined—Burned so as to be easily reduced to powder.
Calculus—Stone or gravel found in the bladder, gall ducts, kidneys, and ureters; ducts which lead from the kidneys to the bladder.
Callous—A hard bony substance or growth.
Capsicum—Cayenne pepper.
Catarrh—Flow of mucus.
Cathartic—An active purgative.
Catheter—Tube for emptying the bladder.
Carminative—An aromatic medicine.
Caustic—A corroding or destroying substance, as nitrate of silver, potash, etc.
Citric Acid—Acid made from lemons.
Chronic—Of long standing.
Collapse—A recession of the blood from the surface.
Coma—Stupor.
Constipation—Costiveness.
Contagious—A disease which may be given to another by contact.
Counter—To work against, as counter-irritant, Spanish-flies, draughts to the feet, etc.
Congestion—Accumulation of blood in a part, unduly.
Convalescence—Improvement in health.
Cuticle—The outer or first portion of the skin, which consists of three coats.
Datura Stramonium—Stink-weed, jimpson, etc.
Diaphoretics—Medicines which aid or produce perspiration.
Decoction—To prepare by boiling.
Dentrifice—A preparation to cleanse the teeth.
Defecation—To pass the feces, to go to stool.
Dentition—Act or process of cutting teeth.
Desiccation—To dry, act of drying.
Demulcent—Mucilaginious, as flax-seed and gum arabic.
Dermoid—Resembling or relating to the skin.
Detergents—Cleansing medicines, as laxatives and purgatives.
Diagnosis—To discriminate disease.
Diaphragm—Midriff.
Diarrhea—Looseness of the bowels.
Digest—Assimilation or conversion of food into chyme—to prepare medicines with continued, gentle heat.
Discutient—A medicine which will scatter or drive away tumors.
Diuretic—That which increases the amount of urine.
Diluted—Reduced with water, as dilute alcohol, half alcohol and half water
Digitalis—Fox-glove, a narcotic.
Dorsal—Having reference to the back.
Douche—A dash or stream upon any part.
Drachm—Sixty grains, a tea-spoonful, or a tea-spoon of.
Dulcamara—The bitter-sweet or woody nightshade.
Dyspepsia—Difficult Digestion.
Dysphonia—Difficulty in speaking.
Dysuria—Difficult or painful urination.
Eau—Water.
Eau de Cologne—Cologne Water.
Ebulition—To boil.
Eclectic—To choose.
Eclectic Physician—One who professes to be liberal in views, independent of party and who favors progress and reform in medicine.
Effervesce—To foam.
Efflorescence—Redness of the general surface.
Effete—Worn out, waste matter.
Elaterium—Fruit of the wild cucumber, a hydragogue.
Electuary—Medicine prepared at the consistence of honey.
Elixir—A tincture prepared with more than one article.
Emesis—The act of vomiting.
Emetic—Medicines which produce emesis, vomiting.
Emmenagogue—A medicine which will aid or bring on the menses.
Emollients—Softening and screening medciines, slippery-elm bark, flax-seed, gum, etc.
Emulsion—Mucilage from the emolients.
Enema—An injection by the rectum.
Ennui—Lassitude, dullness of spirit, disgust of condition, etc.
Epi—Above or over.
Epidermis—Outer skin.
Epigastrium—Region of the pit of the stomach.
Epilepsy—Convulsions fits, with loss of sense for the time, foaming at the mouth and stupor.

Epiglottis—Trap-door cartilage at the root of the tongue, preventing food or fluid from entering the wind-pipe.
Epistaxis—Nose-bleed.
Ergot—Spurred Rye.
Eructation—Raising wind from the stomach, belching.
Eruption—Pimples or blotches on the skin or pustules from small-pox.
Eschar—A slough on the surface.
Escharotic—That which will destroy the flesh.
Essential—Having reference to essences made from essential oils, and alcohol.
Ether—A volatile fluid.
Etherial Oil—Volatile Oil.
Eustachian Tube—A tube leading from the side of the throat to the internal ear.
Eversion—Turning inside out.
Evacuation—To discharge by stool, to haste away. [See the remarks in the body of the work, on "Costiveness."]
Evaporation—To escape in vapor.
Exacerbation—Violent increase in disease.
Exanthemata—Eruptive disease, as small-pox, scarlet fever, measles, etc.
Excrement—The feces, that which passes by stool.
Excretion—That which is thrown off, become useless.
Excoriation—Abrasion, to bruise the skin.
Exhalents—Vessels which throw out fluid upon the external surface of the body.
Expectorant—That which produces or aids a discharge of the mucus from the bronchia, tubes or from the lungs.
Excision—To cut off an extremity.
Extremity—Applied to the arms and legs, called the upper and lower extremities.
Extirpation—To cut out or remove a part.
Extract—To take out, as a tooth, to extract a ball or any foreign substance from a wound—an active principle obtained from vegetables.
Express—To press out juices.
Excresence—An unnatural growth.
Extravasation—A collection of blood into a cavity, or under the skin.
Facial—Belonging to or having reference to the face.
Farina—Meal or flour from vegetables.
Farcy—A disease of the lymphatic vessels in the skin of the flanks of a horse.
Fauces—The pharynx and back of the mouth.
Fasciculur—A bundle, in bundles.
Feces—That which passes by stools.
Febrile—Having reference to fevers.
Febrifuge—Medecines to drive away fever, producing prespiration.
Felon—A deep abscess of the finger, involving the bone, because under the periosteum, the membrane which covers the bone.
Femur—The thigh bone.
Femoral—Relating to the thigh.
Ferment—To oxidize, to effervesce, to work, as emptyings, beer, wine, cider, etc.
Fermentation—To sour, to decompose, both heat and moisture becoming necessary to keep it up.
Ferri Limatura—Iron filings very valuable in female debility and for males of weak habit of body.
Ferrum—Iron.
Fever—That which "Old School Physicians" call a disease, whilst another class (the Tomsonians,) say it is an effort of nature to throw off disease; but Eclectics take it as an indication that the circulating medium is not regular, and go to work at once to equalize the circulation, by the use of diaphoretics, combined with tonics and detergents, which soon sets all to rights: for fever and perspiration cannot long exist together.
Filter—To strain through paper made for that purpose.
Fibre—A very small thread-like substance of animal or vegetable matter.
Fibula—The smallest bone of the leg below the knee.
Fistula—An ulcer.
Flaccid—Flabby, soft, relaxed.
Flabby—Loose and soft to the touch.
Flatus—To inflate the stomach or bowels with gas.
Fluoric Acid—A fluid obtained from the fluor spar cut with sulphuric acid.
Flatulence—Gas in the stomach.
Flooding—Uterine hemorrhage.
Fluor—An increased discharge, to flow.
Fluor spar—Fluoride of calcium.
Fluor Albus—White flow, lenchorrea, whites, etc.
Flux—To flow, diarrhea.
Friction—Rubbing with the dry hand or dry coarse cloth.
Fumigate—To smoke a room, or any article needing to be cleansed.
Fundament—The anus.
Formula—Medical prescriptions.

Fulminating powder—An explosive preparation used in fire-works.
Function—The particular action of an organ, as the function of the stomach, liver, lungs, heart, etc.
Fungus—Spongy flesh in wounds, proud flesh, a soft cancer, which bleeds upon touching its broken surface.
Fusion—To fuse to melt.
Furor—Very violent delirium, not accompanied by fever.
Galbanum—A resinous gum, from a genus of plants.
Genus—Family of Plants, a group, all of a class or nature.
Gall—Bile.
Gall Bladder—A bag which receives the gall, or bile, through ducts, from the liver, delivering it to the stomach, in health, through the duct called communis choledochus.
Gall Stones—Hard biliary concretions found in the gall bladder, and sometimes causing death, from not being able to pass through the ductus communis.
Galla—The gall-nut, an excrescence found upon the oak.
Gallic Acid—An acid from the nut-gall.
Galipot—A glazed jar, used for putting up gummy extracts.
Galvanic—Having reference to galvanism.
Gamboge—A drastic purgative, unless combined with aromatici.
Gangrene—Partial death of a part, often ending in entire mortification of the part, and sometimes of the whole body.
Ganglion—A knot, or lump on tendons, ligaments, or nerves.
Gaseous—Having the nature of gas.
Gastric—Of or belonging to the stomach.
Gastric Juice—Secretion of the stomach.
Gastritis—Inflammation of the stomach.
Gastrodynia—Pain in the stomach, sometimes with spasm of the stomach.
Gelatine—Isinglass.
Gelatinous—Like jelly.
Genitals—Belonging to generation, the sexual organs.
Gentian—An European root, possessing tonic properties.
Genu—The knee.
Genuflexion—Bending the knee, kneeling.
Germ—The vital principle, or life-spark.
Gestation—To be pregnant.
Gland—Secreting organs having ducts emptying into cavities which often become obstructed, causing them to enlarge; hence, the enlargement of the thyroid gland in the neck; causing bronchocele.
Glans—A gland.
Gleet—Chronic gonorrhea.
Globules—Small round particles, having special reference to particles of the red part of the blood.
Glossa—The tongue; a smooth tongue.
Gloss—To give a lustre; to comment; to write or make explanations.
Glossarist—A writer of glosses or comments.
Glossary—An explanation of words.
Glossarial—Containing explanations.
Glossitis—Inflammation of the tongue.
Glottis—The opening of the wind-pipe, at the root of the tongue, larynx, covered by the epiglottis.
Gluten—Coaguiable lymph, white of an egg, a principle in wheat and other vegetables.
Glutton—One who eats excessively.
Gonorrhea—An infectious discharge from the genital organs.
Gout—Painful inflammation of the joints of the toes, or of the fingers.
Granule—A small particle of healthy matter, not pus.
Granulation—Healing up of an ulcer or wound with healthy matter.
Gravel—Crystaline particles in the urine.
Green-Sickness—Cholorosis, debility requiring iron.
Griping—Grinding pain in the stomach, or bowels.
Gutta—One drop, drops.
Gutta Percha—Dried juice of a genus of trees Isonandra gutta.
Guttural—Relating to the throat.
Gymnasium—A place for sportive exercise, which is very valuable to those who cannot or will not take exercise for the sake of dollars and cents.
Gypsum—Sulphate of lime, more commonly called plaster of Paris, because first introduced from that place.
Habit—Good or bad habit, constitutionally, or prejudicially pre-disposed to do some particular thing; medically, as consumptive habit rheumatic habit, etc.
Hema—Blood, prefixed to other words.
Hematemesis—Hemorrhage from the stomach.
Hematuria—Hemorrhage from the bladder.
Hemoptysis—Hemorrhage from the lungs.
Hemorrhoids—Piles, bleeding piles.

Henbane—Hyoscyamus.
Hereditary—Disease from parents.
Hernia—Rupture, which permits a part of the bowel to protrude.
Herpes—Disease of the skin.
Hiera Picra—A medicine containing aloes.
Humerus—The single bone of the upper arm.
Humeral—Pertaining to the arm.
Humors—The fluids of the body, excluding the blood.
Hydragogues—Medicines which produce watery discharges used in dropsy, as elaterium.
Hydrargyrum—Metalic mercury, quicksilver. Doctors' name for calomel.
Hydrocyanic Acid—Prussic acid, nothing more poisonous.
Hydrofluoric Acid—Same as fluoric acid.
Hygea—Health.
Hygiene—Preserving health by diet and other precautions.
Hypo—Signifies low, a low state of health, more annoying to the sufferers than to their friends, who are constantly boring them about it; called hysterics in women, (from hysteria, the womb or uterus,) but blues only, when it gets hold of men; they come from the same cause, general debility, takes a strong remedy, iron, as medicine.
Hypoglottis—Under the tongue.
Hysteria—The uterus, (womb,) also disease, depending upon, or caused by uterine irregularities.
Hysteritis—Inflammation of the uterus.
Ichor—An acrid, biting, watery discharge from ulcers, often corroding, eating the surface.
Icterus—Jaundice, a bilious disease, which shows itself by yellowness of the eyes and skin.
Icterus Albus—Chlorosis, whites, etc.
Ignition—To catch on fire, from Ignis, fire.
Ileus—Cholic in the small intestines.
Iliac—Situated near the flank.
Iliac Region—Sides of the abdomen between the ribs and the thighs.
Imbecile—One weak of mind, imbecility.
Imbibe—To absorb, to drink.
Imbricate—To over-lap, as tiles on a house.
Immerse—To plunge under water.
Immobile—Immovable, as stiff joints.
Imperforate—Without a natural opening.
Impervious—Closed against water.
Impetigo—Tetter.
Imponderable—Not having weight, as light or electricity.
Impoverished—Exhausted vitality.
Impotence—Sterility, not being able to produce.
Impregnation—The act of producing.
Incision—To cut.
Incombustible—Incapability of being burned.
Incompatables—Medicines which ought not to be mixed or given together.
Incontinence—Not being able to hold the natural excretions.
Incorporate—To mix medicines together.
Incubation—To hatch eggs, slow development of disease.
Indication—That which shows what ought to be done.
Indigenous—Peculiarity of a country, or of a small section of country applied to a disease, plants, etc.
Indigestion—Dyspepsia.
Idolent—Slow in progress applied to ulcers and tumors, which are slow with but little or no pain.
Induration—Hardening of any part of the system by disease.
Infectious—Communicable disease from one to another.
Infirmary—Where medicines are distributed gratuitously to the poor; but more recently some physicians have got to calling their offices infirmaries.
Inflammation—Attended with heat, redness, swelling, tenderness, and often with throbbing.
Inflatus—To distend, to blow up with wind or to fill up with gas, as the stomach, bowels, etc.
Influenza—A disease affecting the nostrils, throat, etc. of a catarrhal nature.
Infusion—Medicines prepared by steeping in water, not to boil.
Inguinal—To the groin.
Ingredient—One article of a compound mixture.
Inhalation—To draw in the breath.
Injection—Any preparation introduced into the rectum.
Inorganic—Matter not having organs, all alike, as metals.
Insanity—Derangement of the mind.

Insertion—The attachment of muscles and tendons to the bones, which they move by contraction.
Inspiration—The act of drawing in the breath.
Inspissation—To thicken by boiling, to make what is called the concentrated extracts, desiccation.
Instinct—An involuntary action, as closing the eyelids, breathing etc., natural perception of animals.
Integument—A covering, the skin.
Inter—A prefix denoting between.
Intercostal—Between the ribs.
Intermission—Time between paroxysms of fever or other disease.
Intermittent Fever—Fever which comes on at regular periods, between which there is little and sometimes no fever, an interval.
Internal—Upon the inside.
Interosseous—Between the bones.
Interval—The time between paroxysms of periodical diseases, as ague, etc.
Intestines—Contents of the abdomen.
IntestinalCanal—Embracing the duodenum (the first division below the stomach,) the jejunum, (the second division of the small intestines,) the ilium, (the third and longest portion of the small intestines,) the secum, (the first portion of the large intestine,) the colon, (the large intestine.) and the rectum, (the lower trap-door.)
Intolerance—In medicine, applied to the eye, as intolerance of light; to the stomach as in tolerance of food.
Inversio Uteri—Inversion of the uterus.
Inversion—To turn inside out.
Irreducible—Applied to hernia, and to joints which have been put out and cannot be put back to their place.
Ischuria—Not being able to pass the urine.
Issue—Sore made as a counter-irritant, to draw irritation from a diseased part.
Itch—Psora, scabies, a catching eruption of the skin.
Itis—An addition to a word denoting inflammation, pleuritis, pleurisy, etc.
Ivory black—Animal charcoal.
Jaundice—A disease caused by the inactivity of the liver or ducts leading from it.
Jelly—Gelatine in a fluid state, as applied to medicine.
Jesuits bark—First name of peruvian bark, from its having been discovered by the Jesuit missionaries.
Jugular—Applied to the veins of the throat.
Jujube—An East India fruit something like a plumb, used in coughs, but of a doubtful reputation.
Kali—Potash.
Kelp—Ashes of sea-weed.
Knot—Surgeons tie their knot by passing the thread twice through the loop which prevents slipping.
Labia—Lips.
Labia Pedundi—Lips or sides of the vulva.
Labial—Of, or belonging to the lips.
Labor—Child-birth, parturition.
Laboratory—A place of chemical experiments or operations.
Lancinating—Sharp, piercing, as lancinating pains.
Laryngeal—Of the larynx.
Larynx—The upper part of the throat.
Laryngitis—Inflammation of the throat.
Latent—Hidden, as Latent heat, see the remarks connected with steam boiler explosion.
Lassitude—Weakness, a feeling of stupor.
Laxative—A very gentle cathartic.
Leptandrin—Powder made from the leptandria virginica, blackroot, Culver's physic.
Leucorrhea—Fluor albus, whites, chlorosis, etc.
Levigate—To redue to very fine powder.
Ligature—A thread, to ligate, to tie with a ligature.
Located—Fixed, seated upon some organ.
Lingua—The tongue.
Linguist—A speaker, fluency, one who understands different languages.
Liniment—A fluid preparation to be applied by friction.
Lithontriptic—A medecine reported to dissolve gravel or stone in the bladder.
Lithotomy—The operation of cutting, to take out stone of the bladder.
Liver—The largest gland, and largest organ of the body.
Livid—A dark colored spot on the surface.
Loins—Lower part of the back.
Lotion—A preparation to wash a sore.
Lubricate—To soften with oil, or to moisten with fluid. The internal organs are covered with a membrane which throws out a lubricating fluid, enabling them to move easily upon each other.
Lute—A paste with which to close chemical retorts, the casein, curd of milk is used for that purpose.

Lymph—A thin colorless fluid carried in small vein-like vessels called lymphatics.
Macerate—To steep, to soften by soaking.
Mal—Bad, mal practice, bad practice, not according to science.
Malformation—Irregular, unnatural formation.
Malaria—Bad gases, causing disease, supposed to arise from decaying vegetable matter.
Mamma—the female breast, which is composed of glands that secrete the milk, upon the principle that the liver secretes bile; each organ for its specific purpose; but secreting organs, or glands are the more liable to get obstructed, thus producing disease.
Mastication—The act of chewing.
Masturbation—Excitement, by the hand, of the genital organs. The most injurious, health-destroying, soul-debasing, of all evils introduced into the world; because its frequent repetition draws very heavily on the nervous system, prostrating the energies, destroying the memory, together with the life-principle, as well as the principles of morality which ought to govern every human being, between himself and his Creator.
Maturity—To become ripe, to arrive at adult age, beyond further growth.
Materia—Matter, healthy substance.
Materia Medica—The science of medicine, and the medical combinations.
Maturation—Formation of pus, healthy matter.
Matrix—The womb.
Meconium—The first passage after birth.
Medical—Relating to medicine.
Medicated—Having medicine in its preparation.
Membrane—A thin lining or covering, skin-like, as the peritoneum, which lines the cavity of the bowels and covers the intestines; and the periosteum, membrane, which covers the bones, etc.
Medicament—A remedy; hence, medicamentum, the Welch remedy for every disease.
Medicinal—Having medical properties.
Medullary—Like marrow, brain-like.
Mel—Honey.
Menstruation—Monthly flow.
Mentha Piperita—Peppermint.
Median—The middle.
Mellifluous—Flowing with honey, sweetness, delicious; akin to luscious, juicy mellowness.
Menorrhagia—Excessive flooding.
Micturition—To urinate, to pass the urine.
Midwifery—Art of assisting at child-birth.
Minim—About one drop, one-sixtieth of a fluid drachm.
Minimum—The smallest, the smallest dose, the opposite of maximum.
Modus Operandi—The way in which medicines act, applicable to any action, the way of doing it.
Morbid—Unhealthy.
Morbus—A disease; hence cholera morbus, a disease of the bowels.
Mordant—That which fastens the colors in dyeing, as alum, cream-of-tartar, argal, vitriols, tin, liquor, etc.
Mucus—Animal mucilage.
Mucus Membrane—See remarks under the head of "Inflammation," in the body of the work.
Mucilage—A watery solution of gum, or elm bark, etc.
Muriatic—Having reference to sea salt.
Muriatic Acid—Marine acid, often called hydrochloric acid.
Muscle—A bundle of fibres.
Muscular—Having reference to the muscles, strong built.
Myrrh—A resinous gum.
Narcotic—Stupefying medicines, producing sleep.
Nares—The nostrils.
Nasal—Of the nose.
Nausea—Sickness of the stomach, may increase until vomiting takes place, or it may not.
Nauseant—That which produces nausea.
Navel—Centre of the abdomen.
Necros—Death.
Necrosis—Death of a bone.
Nephros—The kidney.
Nephritis—Inflammation of the kidneys.
Nervous—Easily excited.
Nervine—That which will allay, or soothe nervous excitement.
Neuralgia—Pain in nerves.
Nitre—Saltpeter.
Nocturnal—Occurring in the night.
Nitrate—Nitric acid combined with alkalies or alkaline salts.
Normal—In a natural and healthy condition.
Nostrum—A medical preparation.

Nothus—Spurious, Illegitimate, a bastard.
Nudus—Nude, without clothing.
Nutrition—Nourishment.
Nutritious—Nourishing.
Obesity—Corpulence, excess of fat, or flesh.
Obstetrics—The science of midwifery.
Ochre—An ore of iron.
Oculus—The eye.
Oculist—An eye doctor.
Oleaginous—An oily substance.
Omentum—The caul, peritoneal covering of the intestines.
Opacity—To obstruct light.
Opaque—Not transparent, inability to see through it.
Opthalmos—The eye.
Opthalmia—Disease of the eye, inflammation of the eye.
Opiate—An anodyne.
Organ—A part of the body, which has a certain work to perform, called the function of organs, as the stomach, lungs, womb, etc.
Organic—Bodies made up of organs.
Organism—Vital organization.
Organized—Furnished with life.
Orgasm—The closing excitement of sexual connection.
Origin—The point of commencement.
Orifice—An opening
Os Tince—Mouth of the womb, or uterus.
Osseous—A bony substance.
Ossification—To become bone; from ost, or osteo, a bone or like a bone.
Ostalgia—Pain in a bone.
Osteoma—Tumor, like bone.
Ostitis—Inflammation of a bone or bones.
Otic—Having reference to the ear.
Otitis—Inflammation of the ear.
Ottorrhea—Discharge from the ear.
Ova—An egg, made up of little eggs.
Ovaria—Testes; most generally applied to the female; female testes, two egg-shaped bodies, (made up of little particles, or eggs,) having an attachment to the uterus in the broad ligaments, which support that organ, having tubes, or ducts, opening from them into the uterus, called Fallopian tubes, from the man's name who first gave a description of them. One of these particles is thrown off at each menstrual flow.
Oviparous—Birds, or any animals that produce their young from eggs, or by eggs.
Ovum—An egg.
Oxalic Acid—An acid found in sorrel, very poisonous.
Oxide—A combination of oxygen with a metal or fluid. as oxygen combining with vinegar-fluid forms vinegar, oxygen combining with iron, forms oxide of iron, rust of iron, etc.
Oxygen—One of the elements of the air, an acidifying (souring) principle, and an element (a particle or part) of water.
Ozymel—A preparation of vinegar and honey, from mel, honey.
Ozena—Fetid ulcer at the nose, or fetid discharge from the nose.
Pabulum—Food; aliment.
Pad—A cushion.
Palliative—To afford relief, only.
Palpitation—Unhealthy, or unnatural beating of the heart.
Pan—As a prefix, means all.
Panacea—Remedy for all diseases, consequently (speaking ironically) any patent medicine.
Paralysis—Loss of motion; numb palsy.
Partus—Labor; the young when brought forth.
Parturition—Childbirth.
Paroxysm—A fit of disease occurring at certain periods.
Periodical—Occurring at a certain time.
Petal—A flower leaf, as rose leaves, etc.
Phthisis—A wasting; consumption.
Pathos—A disease.
Pathology—The doctrine of disease.
Pectoral—Pertaining to the breast.
Pediluvium—A foot-bath.
Pendulous—To hang down.
Penis—The male organ of generation.
Pepsine—A peculiar substance in the stomach, which aids digestion.
Peptic—Digestive; hence, dyspeptic, not digesting.
Percolation—To run, or draw through some substance, straining.

Premonitory—To give a previous notice, as premonitory symptoms.
Peri—Around; a covering.
Pericardium—Around the heart; sac containing the heart.
Pericarditis—Inflammation of the pericardium.
Perin—A testicle; male organs; corresponding with testes in females, with this difference, however, that with males they are upon the outside, whilst with females they are upon the inside of the body.
Perineum—That part between the anus and organs of generation or genitals.
Perineal—Relating to the region of the perineum.
Period—A certain time.
Periodicity—Returning at a certain time.
Periosteum—The membrane which covers all bones.
Perspective View—As it appears to the eye at a certain distance.
Perturbation—To disturb.
Perversion—An unhealthy change; to change from its proper or natural course.
Pessary—That which will support or hold up the womb in prolapsus; see our remarks on "Female Debility."
Phagedenic—An eating and fast-spreading ulcer.
Pharmacy—The art of combining and preparing medicines.
Phlegm—Mucus from the bronchial tubes, and throat.
Phlogistic—Tendency to inflammation.
Phosphorus—An inflammable and luminous substance, prepared from urine and bones.
Phosphate—Phosphoric acid in combination of metals, as phosphate of iron, phosphate of lime, etc.
Piles—Tumors at or in the anus; sometimes protruding; often attended with hemorrhage, then called hemorrhoids.
Piperine—A preparation from black pepper, considered valuable in ague.
Placenta—After-birth, which has a connection to the womb and to the child during pregnancy; but it is naturally thrown off by the violent contractions of the womb at this period, there being no further use for it. Oh, the wisdom of our Creator! How glorious to contemplate! Everything adapted to the necessities of the case.
Plethora—Over fullness; if healthy, causing obesity, corpulence.
Pleuritis—Inflammation of the pleura; pleurisy.
Pleura—The serous membrane covering the lungs, and folded upon the sides.
Pneumon—The lungs.
Pneumonia—Inflammation of the lungs.
Podophyllin—A powder made from the podophyllum peltatum, mandrake root.
Pomum—The apple; hence, pomace, mashed apple.
Potassium—The basis of potash.
Potus—A drink; hence, potion, a medicated drink.
Predisposition—A tendency to a certain disease.
Pregnancy—Being with child.
Prognosis—The art of *guessing* how a disease will terminate.
Prolapsus—A falling.
Prolapsus Ani—Falling of the anus.
Prolapsus Uteri—Falling of the uterus.
Prostration—Without strength.
Prussiate—A compound with prussic acid.
Prussic Acid—Hydrocyanic acid; one of, or the most virulent poisons in existence.
Psora—The itch.
Pubes—The prominence at the lower front part of the body.
Puberty—Full growth; an adult; perfection.
Pubic—Having reference to the region of the pubes.
Pudendum—The female organs of generation.
Puer—A boy, or child.
Puerpera—A woman who has just brought forth a child; hence, puerperal fever at or soon after childbirth.
Pulmo—A lung.
Pulmonitis—Inflammation of the lung or lungs.
Pulmonary—Relating to the lungs, as pulmonary balsam, pulmonic wafers, etc.
Pulvis—A powder; hence, pulverize, to make fine. All these words show how heavily we have drawn upon other languages for our own, consequently the necessity of studying the Latin and Greek, to properly understand ours.
Pupil—The dark circle in the eye.
Purgative—A gentle cathartic.
Pus—Unhealthy matter.
Pustule—A slight elevation, having pus.
Putrefaction—To decompose by fermentation.
Putrid—Rotten; decomposed.
Pyroligneous Acid—An acid obtained from wood; the essence of smoke; if a little of it is put into a barrel with meat in the brine, it smokes it without trouble. I think a gill to the barrel sufficient; perhaps a little less will do. It is obtained by inserting an old gun-barrel or other iron tube into a coal-pit, near the bottom, when burning; it condenses in the tube, and drops from the outer end into a dish, then bottled for use.

Quassia—A bitter tonic; the chips of the wood are used.
Rachis—The spine.
Rachitis—Rickets, bending of the spine, and sometimes the long bones of the limbs; may be also enlargement of the head, bowels, and the ends of the long bones.
Radius—The bone of the upper arm.
Radial—Having reference to the upper arm.
Radiated—Diverging from a center.
Radix—A root.
Ramus—A branch.
Ramification—To branch out.
Rancidity—Rancid, stale; applied to oil, fat, butter, etc.
Rash—A redness of the skin, in patches.
Ratsbane—Arsenious acid; arsenic.
Rattle—Noise of air passing through mucus, as in croup.
Reaction—To return, after recession.
Recession—Striking in the blood, or disease going to the internal organs.
Recini Oleum—Castor oil.
Rectum—The lower portion of the intestines.
Reduction—To set a fracture, or to return a hernia.
Refrigerant—A cooling medicine or drink.
Regimen—Regulation of diet and habits, to preserve health or to cure disease.
Relapse—Recurrence of disease after an improved appearance, which is generally worse than the first attack.
Relaxation—Losing the healthy tone of any part, or the whole system.
Repletion—Fullness.
Reproduction—Generation; procreation.
Respiration—To breathe, including both inspiration and expiration.
Resolution—To return to health; applied to inflammations.
Retching—An effort to vomit.
Retention—Delay of the natural passage of the urine or feces.
Revulsion—To draw away disease, as draughts, or blisters, irritating plasters, etc.
Rheumatism—Inflammation of the fibrous tissue, mostly confined to the large joints.
Rigor—Coldness, with shivering.
Rochelle Salts—A mixture of tartarate of potash and soda.
Rubefacients—Medicines which cause redness of the skin, as mustard, radish leaves, etc.
Rupture—Hernia; by some called a breach.
Saccharine—The properties of sugar.
Saliva—The secretion of the mouth, spittle; hence, salivation, an increased flow of saliva.
Salt—A compound of an acid with an alkali, or metal.
Saltpetre—Nitrate of potash.
Salubrious—Climate favorable to health.
Sanative—A curative medicine.
Sanguis—Blood.
Sanguineous—Bloody; sanguineous discharge, as bloody-flux.
Santonin—A powder obtained from worm-seed.
Sarcoma—A fleshy tumor, generally of a cancerous nature.
Scabies—The itch.
Scirrhus—A hard tumor, generally of a cancerous nature.
Scrofula—A constitutional tendency to disease of the glands.
Scrotum—The sac which encloses the testicles.
Sedative—To depress, the opposite of stimulation.
Seidlitz—A village in Bohemia; hence, Seidlitz powders, which originated at that place.
Sinapis—Mustard: hence, sinapisms, mustard plasters.
Slough—Death of a part, allowing it to come out from the healthy part.
Stimulant—A medicine calculated to excite an increased and healthy action.
Styptic—To stop bleeding.
Snake Root—Common or Virginia snake-root; but black snake-root is the black cohosh.
Spasm—Cramp, or convulsion.
Specific—A remedy having a uniform action, producing health.
Sperm—Seminal fluid, now more often called the semen, seed.
Spermatic—Having reference to the testicles, or ovaries.
Spina—Tho backbone; hence, spine.
Stitch—A spasmodic pain.
Stoma—The mouth.
Stomatitis—Inflammation of the mouth.
Strangulation—To choke: also applied to hernia which cannot be reduced.
Sudor—Sweat; hence, sudorific, to sweat.
Sulphate—A combination with sulphuric acid.
Sulphuric Acid—Oil of vitriol.
Suppression—An arrest of natural discharge.
Suppuration—To produce pus.
Sympathy—To be affected by the disease of another organ, as sick-headache from even loading the stomach.

Symptom—A sign of disease.
Syncope—To swoon; fainting.
Syphilis—Disease from sexual connection with those who have venereal disease.
Tannic Acid—An acid from oak bark; an astringent.
Tartaric Acid—An acid from cream-of-tartar, found in grapes.
Tenesmus—Difficulty and pain at stool, with a desire to go to stool often.
Tent—A roll of lint or cloth to keep wounds open until they heal from the bottom.
Testes—Testicles.
Therapeutics—Relating to a knowledge of treating disease: the curative action of medicine.
Thorax—The chest.
Tibia—The large bone of the lower leg.
Tonsils—Glands on each side of the throat.
Trachea—The windpipe.
Translation—Disease going to some other organ.
Triturate—To rub into a powder.
Tumor—An enlargement of a portion, usually of the external parts.
Ulna—Small, or under bone of the arm.
Umbilicus—The navel.
Ureter—Duct leading from the kidney to the bladder.
Urethra—Duct leading out from the bladder.
Uterus—The womb.
Vagina—The passage from the womb to the vulva.
Venery—Sexual indulgence.
Vermifuge—Having the property to destroy worms.
Virus—Contagious poison.
Vulva—External opening of the female genitals.
Whites—Fluor albus.
Yeast—The principle of fermentation.
Zinci Sulphas—Sulphate of zinc; white vitriol.

HINTS ON ETIQUETTE AND PERSONAL MANNERS.

BY THE PUBLISHER.

Introduction to Society.—Avoid all extravagance and mannerism, and be not over timid at the outset. Be discreet and sparing of your words. Awkwardness is a great misfortune, but it is not an unpardonable fault. To deserve the reputation of moving in good society, something more is requisite than the avoidance of blunt rudeness. Strictly keep to your engagements. Punctuality is the essence of politeness.

The Toilet.—Too much attention cannot be paid to the arrangement of the toilet. A man is often judged by his appearance, and seldom incorrectly. A neat exterior, equally free from extravagance and poverty, almost always proclaims a right-minded man. To dress appropriately, and with good taste, is to respect yourself and others. A gentleman walking, should always wear gloves, this being one of the characteristics of good breeding. Fine linen, and a good hat, gloves, and boots, are evidences of the highest taste in dress.

Visiting Dress.—A black coat and pants are indispensable for a visit of ceremony, an entertainment, or a ball. The white or black waistcoat is equally proper in these cases.

Officers' Dress.—Upon public and state occasions officers should appear in uniform.

Ladies' Dress.—Ladies' dresses should be chosen so as to produce an agreeable harmony. Never put on a dark-colored bonnet with a light spring costume. Avoid uniting colors which will suggest an epigram; such as a straw-colored dress with a green bonnet.

Arrangement of the Hair.—The arrangement of the hair is most important. Bands are becoming to faces of a Grecian caste. Ringlets better suit lively and expressive heads.

Excess of Lace and Flowers.—Whatever be your style of face, avoid an excess of lace, and let flowers be few and choice.

Appropriateness of Ornaments.—In a married woman a richer style of ornament is admissible. Costly elegance for her—for the young girl, a style of modest simplicity.

Simplicity and Grace.—The most elegant dress loses its character if it is not worn with grace. Young girls have often an air of constraint, and their dress seems to partake of their want of ease. In speaking of her toilet, a woman should not convey the idea that her whole skill consists in adjusting tastefully some trifling ornaments. A simple style of dress is an indication of modesty.

Cleanliness.—The hands should receive especial attention. They are the outward signs of general cleanliness. The same may be said of the face, the neck, the ears, and the teeth. The cleanliness of the system generally, and of bodily apparel, pertains to health, and is treated of under this head.

The Handkerchief.—There is considerable art in using this accessory of dress and comfort. Avoid extreme patterns, styles, and colors. Never be without a handkerchief. Hold it freely in the hand, and do not roll it into a ball. Hold it by the center, and let the corners form a fan-like expansion. Avoid using it too much. With some persons the habit becomes troublesome and unpleasant.

Visits and Presentations.—Friendly calls should be made in the forenoon, and require neatness, without costliness of dress.

Calls to give invitations to dinner-parties, or balls, should be very short, and should be paid in the afternoon.

Visits of condolence require a grave style of dress.

A formal visit should never be made before noon. If a second visitor is announced, it will be proper for you to retire, unless you are very intimate both with the host and the visitor announced; unless, indeed, the host express a wish for you to remain.

Visits after balls or parties should be made within a month.

In the latter it is customary to enclose your card in an envelop, bearing the address outside. This may be sent by post, if you reside at a distance.

But, if living in the neighborhood, it is polite to send your servant, or to call. In the latter case a corner should be turned down.

Scrape your shoes and use the mat. Never appear in a drawing-room with mud on your boots.

When a new visitor enters a drawing-room, if it be a gentleman, the ladies bow slightly; if a lady, the guests rise.

Hold your hat in your hand, unless requested to place it down. Then lay it beside you.

The last arrival in a drawing-room takes a seat left vacant near the mistress of the house.

A lady is not required to rise to receive a gentleman, nor accompany him to the door.

When your visitor retires, ring the bell for the servant. You may then accompany your guest as far towards the door as the circumstances of your friendship seem to demand.

Request the servant, during the visit of guests, to be ready to attend to the door the moment the bell rings.

When you introduce a person, pronounce the name distinctly, and say whatever you can to make the introduction agreeable. Such as "an old and valued friend," "a schoolfellow of mine," "an old acquaintance of our family."

Never stare about you in a room as if you were taking stock.

The gloves should not be removed during a call.

Be hearty in your reception of guests; and where you see much diffidence, assist the stranger to throw it off.

A lady does not put her address on her visiting card.

Balls and Evening Parties.—An invitation to a ball should be given *at least* a week beforehand.

Upon entering, first address the lady of the house; and after her, the nearest acquaintances you may recognize in the house.

If you introduce a friend, make him acquainted with the names of the chief persons present. But first present him to the lady of the house, and to the host.

Appear in full dress.

Always wear gloves.

Do not wear rings on the outside of your gloves.

Avoid an excess of jewelry.

Do not select the same partner frequently.

Distribute your attentions as much as possible.

Pay respectful attention to elderly persons.

Be cordial when serving refreshments, but not importunate.

If there are more dancers than the room will accommodate, do not join in every dance.

In leaving a large party it is unnecessary to bid farewell, and improper to do so before the guests.

A Paris card of invitation to an evening party usually implies that you are invited for the season.

Chess and all unsociable games should be avoided.

The host and hostess should look after their guests, and not confine their attentions. They should, in fact, assist those chiefly who are least know in the roomn.

Avoid political and religious discussions. If you have a "hobby," keep it to yourself.

After dancing, conduct your partner to a seat.

Resign her as soon as her next partner advances.

Wedding Dress.—It is impossible to lay down specific rules for dress, as fashions change, and tastes differ. The great art consists in selecting the style of dress most becoming to the person. A stout person should adopt a different style from a thin person; a tall one from a short one. Peculiarities of complexion, and form of face and figure, should be duly regarded; and in these matters there is no better course than to call in the aid of any respectable milliner and dressmaker, who will be found ready to give the best advice. The bridegroom should simply appear in full dress, and should avoid everything eccentric and broad in style. The bridesmaids should always be made aware of the bride's dress before they choose their own, which should be determined by a proper harmony with the former.

Hints upon Personal Manners.—It is sometimes objected to books on etiquette that they cause those who consult them to act with mechanical restraint, and to show in society that they are governed by arbitrary rules, rather than by an intuitive perception of what is graceful and polite.

This objection is unsound, because it supposes that people who study the theory of etiquette do not also exercise their powers of observation in society, and obtain, by their intercourse with others, that freedom and ease of deportment which society alone can impart.

Books upon etiquette are useful, inasmuch as they expound the laws of polite society. Experience alone, however, can give effect to the precise *manner* in which those laws are required to be observed.

Whatever objections may be raised to the teachings of works on etiquette, there can be no sound argument against a series of simple and brief hints, which shall operate as precautions against mistakes in personal conduct.

Avoid intermeddling with the affairs of others. This is a most common fault. A number of persons seldom meet but they begin discussing the affairs of some one who is absent. This is not only uncharitable, but positively unjust. It is equivalent to trying a *cause in the absence of the person implicated.* Even in the criminal code the prisoner is presumed to be innocent until he is found guilty. Society, however, is less just, and passes judgment without hearing the defense. Depend upon it, as a certain rule, *that the people who unite with you in discussing the affairs of others will proceed to scandalise you in your absence.*

Be consistent in the avowal of principles. Do not deny to-day

that which you asserted yesterday. If you do, you will stultify yourself, and your opinions will soon be found to have no weight. You may fancy that you gain favor by subserviency; but so far from gaining favor, you lose respect.

Avoid falsehood. There can be found no higher virtue than the love of truth. The man who deceives others must himself become the victim of morbid distrust. Knowing the deceit of his own heart, and the falsehood of his own tongue, his eyes must always be filled with suspicion, and he must lose the greatest of all happiness—confidence in those who surround him.

The following elements of manly character are worthy of frequent meditation:

To be wise in his disputes.
To be a lamb in his home.
To be brave in battle and great in moral courage.
To be discreet in public.
To be a teacher in his household.
To be a council in his nation.
To be an arbitrator in his vicinity.
To be a legislator in his country.
To be conscientious in his actions.
To be happy in his life.
To be diligent in his calling.
To be just in his dealing.
That whatever he doeth be to the will of God.

Avoid manifestations of ill-temper. Reason is given for man's guidance. Passion is the tempest by which reason is overthrown. Under the effects of passion, man's mind becomes disordered, his face disfigured, his body deformed. A moment's passion has frequently cut off a life's friendship, destroyed a life's hope, embittered a life's peace, and brought unending sorrow and disgrace. It is scarcely worth while to enter into a comparative analysis of ill-temper and passion; they are alike discreditable and injurious, and should stand equally condemned.

Avoid pride. If you are handsome, God made you so; if you are learned, some one instructed you; if you are rich, God gave you what you own. It is for others to perceive your goodness; but you should be blind to your own merits. There can be no comfort in deeming yourself better than you really are; that is self-deception. The best men throughout all history have been the most humble.

Affectation is a form of pride. It is, in fact, pride made ridiculous and contemptible. Some one writing upon affectation has remarked as follows:

"If anything will sicken and disgust a man, it is the affected, mincing way in which some people choose to talk. It is perfectly nauseous. If these young jackanapes, who screw their words into all manner of diabolical shapes, could only feel how perfectly disgusting they were, it might induce them to drop it. With many, it soon becomes such a confirmed habit that they cannot again be taught to talk in a plain, straightforward, manly way. In the lower order of ladies' boarding schools, and, indeed, too much everywhere, the same sickening, mincing tone is too often found. Do, pray, good people, do talk in your natural tone, if you don't wish to be utterly ridiculous and contemptible."

We have adopted the foregoing paragraph because we approve of some of its sentiments, but chiefly because it shows that persons who object to affectation may go to the other extreme—vulgarity. It is

vulgar, we think, to call even the most affected people "Jackanapes, who screw their words into all manner of diabolical shapes." Avoid vulgarity in manner, in speech, and in correspondence. To conduct yourself vulgarly is to offer offense to those who are around you; to bring upon yourself the condemnation of persons of good taste; and to incur the penalty of exclusion from good society. Thus, cast among the vulgar, you become the victim of your own error.

Avoid swearing. An oath is but the wrath of a perturbed spirit. It is *mean.* A man of high moral standing would rather treat an offence with contempt than show his indignation by an oath. It is *vulgar;* altogether too low for a decent man. it is *cowardly;* implying a fear either of not being believed or obeyed. It is *ungentlemanly.* A gentleman, according to Webster, is a *genteel man*—well-bred, refined. It is *indecent;* offensive to delicacy, and extremely unfit for human ears. It is *foolish.* "Want of decency is want of sense." It is *abusive*—to the mind which conceives the oath, to the tongue which utters it, and to the person at whom it is aimed. It is *venomous;* showing a man's heart to be as a nest of vipers; and every time he swears, one of them starts out from his head. It is *contemptible;* forfeiting the respect of all the wise and good. It is *wicked;* violating the Divine law, and provoking the displeasure of Him who will not hold him guiltless who takes His name in vain.

Be a gentleman. Moderation, decorum, and neatness distinguish the gentleman; he is at all times affable, diffident, and studious to please. Intelligent and polite, his behavior is pleasant and graceful. When he enters the dwelling of an inferior, he endeavors to hide, if possible, the difference between their ranks in life; ever willing to assist those around him, he is neither unkind, haughty, nor overbearing.

Be honest. Not only because "honesty is the best policy," but because it is a duty to God and to man. The heart that can be gratified by dishonest gains; the ambition that can be satisfied by dishonest means; the mind that can be devoted to dishonest purposes, must be of the worst order.

Having laid down these general principles for the government of personal conduct, we will epitomize what we would still enforce:

Avoid idleness—it is the parent of many evils. Can you pray, "Give us this day our daily bread," and not hear the reply, "Do thou this day thy daily duty"?

Avoid telling idle tales, which is like firing arrows in the dark, you know not into whose heart they may fall.

Avoid talking about yourself, praising your own work, and proclaiming your own deeds. If they are good they will proclaim themselves; if bad, the less you say of them the better.

Avoid envy; for it cannot benefit you, nor can it injure those against whom it is cherished.

Avoid disputation for the mere sake of argument. The man who disputes obstinately, and in a bigoted spirit, is like the man who would stop the fountain from which he should drink. Earnest discussion is commendable; but factious argument never yet produced a good result.

Be kind in little things. The true generosity of the heart is more displayed by deeds of minor kindness, than by acts which may partake of ostentation.

Be polite. Politeness is the poetry of conduct—and like poetry, it has many qualities. Let not your politeness be too florid, but of that gentle kind which indicates a refined nature.

Be sociable—avoid reserve in society. Remember that the social

elements, like the air we breathe, are purified by motion. Thought illumines thought, and smiles win smiles.

Be punctual. One minute too late has lost many a golden opportunity. Besides which, the want of punctuality is an affront offered to the person to whom your presence is due.

The foregoing remarks may be said to apply to the moral conduct, rather than to the details of personal manners. Great principles, however, suggest minor ones; and hence, from the principles laid down, many hints upon personal behavior may be gathered.

Be hearty in your salutations, discreet and sincere in your friendships.

Prefer to listen rather than to talk.

Behave, even in the presence of your relations, as though you felt respect to be due to them.

In society never forget that you are but one of many.

When you visit a friend, conform to the rules of his household; lean not upon his tables, nor rub your feet against his chairs.

Pry not into letters that are not your own.

Pay unmistakable respect to ladies everywhere.

Beware of foppery, and of silly flirtation.

In public places be not too pertinacious of your own rights, but find pleasure in making concessions.

Speak distinctly, look at the person to whom you speak, and when you have spoken, give him an opportunity to reply.

Avoid drunkenness as you would a curse; and modify all appetites, especially those that are acquired.

Dress well, but not superfluously; be neither like a sloven, nor like a stuffed model.

Keep away all uncleanly appearances from the person. Let the nails, the teeth, and, in fact, the whole system receive *salutary* rather than *studied* care. But let these things receive attention at the toilette —not elsewhere.

Avoid displaying excess of jewelry. Nothing looks more effeminate upon a man.

Be modest and sensible. Do not be above your business, no matter what that may be, but strive to be the best in that line. He who turns up his nose at his work quarrels with his bread and butter. He is a poor smith who quarrels with his own sparks; there's no shame about any honest calling; don't be afraid of soiling your hands, there's plenty of soap to be had. You cannot get honey if you are frightened at bees, nor plant corn if you are afraid of getting mud on your boots. Above all, avoid laziness. There is plenty to do in this world for every pair of hands placed in it, and we must so work that the world will be richer because of our having lived in it.

Every one of these suggestions may be regarded as the center of many others, which the earnest mind cannot fail to discover.

Choice of Friends.—We should ever have it fixed in our memories, that *by the character of those whom we choose for our friends our own character is likely to be formed*, and will certainly be judged of by the world. We ought, therefore, to be slow and cautious in contracting intimacy; but when a virtuous friendship is once established, we must ever consider it as a sacred engagement.—*Dr. Blair.*

Words.—Soft words soften the soul—angry words are fuel to the flame of wrath, and make it blaze more freely. Kind words make other people good-natured—cold words freeze people, and hot words scorch them, and bitter words make them bitter, and wrathful words

make wrathful. There is such a rush of all other kinds of words in our days, that it seems desirable to give kind words a chance among them. There are vain words, and idle words, and hasty words, and spiteful words, and silly words, and empty words, and profane words, and boisterous words, and warlike words. Kind words also produce their own image on men's souls, and a beautiful image it is. They smooth, and quiet, and comfort the hearer. They shame him out of his sour, and morose, and unkind feelings. We have not yet begun to use kind words in such abundance as they ought to be used.

Gossiping.—If you wish to cultivate a gossiping, meddling, censorious spirit in your children, be sure when they come home from church, a visit, or any other place where you do not accompany them, to ply them with questions concerning what everybody wore, how everybody looked, and what everybody said and did; and if you find anything in this to censure, always do it in their hearing. You may rest assured, if you pursue a course of this kind, they will not return to you unladen with intelligence; and, rather than it should be uninteresting, they will by degrees learn to embellish, in such a manner as shall not fail to call forth remarks and expressions of wonder from you. You will, by this course, render the spirit of curiosity, which is so early visible in children, and which, if rightly directed, may be made the instrument of enriching and enlarging their minds, a vehicle of mischief which will serve only to narrow them.

Rules of Conduct.—We cannot do better than quote the valuable injunctions of that excellent woman, Mrs. Fry, who combined in her character and conduct all that is truly excellent in woman: 1. I never lose any time—I do not think that time lost which is spent in amusement or recreation some part of each day; but always be in the habit of being employed. 2. Never err the least in truth. 3. Never say an ill thing of a person when thou can not say a good thing of him; not only speak charitably, but feel so. 4. Never be irritable or unkind to anybody. 5. Never indulge yourself in luxuries that are not necessary. 6. Do all things with consideration; and when thy path to act right is most difficult, feel confidence in that Power alone which is able to assist thee, and exert thy own powers as far as they go.

The Female Temper.—No trait of character is more agreeable in a female than the possession of a sweet temper. Home can never be happy without it. It is like the flowers that spring up in our pathway, reviving and cheering us. Let a man go home at night, wearied and worn by the toils of the day, and how soothing is a word dictated by a good disposition! It is sunshine falling on his heart. He is happy, and the cares of life are forgotten. A sweet temper has a soothing influence over the minds of a whole family. Where it is found in the wife and mother, you observe a kindness and love predominating over the natural feelings of a bad heart. Smiles, kind words and looks, characterize the children, and peace and love have their dwelling there. Study, then, to acquire and maintain a sweet temper.

Counsels for the Young.—Never be cast down by trifles. If a spider break his thread twenty times, twenty times will he mend it again. Make up your mind to do a thing, and you will do it. Fear not if a trouble comes upon you; keep up your spirits, though the day be a dark one. If the sun is going down, look up to the stars. If the earth is dark, keep your eye on heaven. With God's promises, a man or a child may be cheerful. Mind what you run after. Never be content with a bubble that will burst, firewood that will end in smoke and darkness. Get that which you can keep, and which is worth keeping.

Fight hard against a hasty temper. Anger will come, but resist it strongly. A fit of passion may give you cause to mourn all the days of your life. Never revenge an injury. If you have an enemy, act kindly to him, and make him your friend. You may not win him over at once, but try again. Let one kindness be followed by another, till you have compassed your end. By little and little, great things are completed; and repeated kindness will soften the heart of stone. Whatever you do, do it willingly. A boy that is whipped to school never learns his lessons well. A man who is compelled to work, cares not how badly it is performed. He that pulls off his coat cheerfully, strips up his sleeves in earnest, and sings while he works, is the man of action.

Advice to Young Ladies.—If you have blue eyes, you need not languish.

If black eyes, you need not stare.

If you have pretty feet, there is no occasion to wear short petticoats.

If you are doubtful as to that point, there can be no harm in letting the petticoats be long.

If you have good teeth, do not laugh for the purpose of showing them.

If you have bad ones, do not laugh less than the occasion may justify.

If you have pretty hands and arms, there can be no objection to your playing on the harp if you play well.

If they are disposed to be clumsy, work tapestry.

If you have a bad voice, rather speak in a low tone.

If you have the finest voice in the world, never speak in a high tone.

If you dance well, dance but seldom.

If you dance ill, never dance at all.

If you sing well, make no previous excuses.

If you sing indifferently, hesitate not a moment when you are asked, for few people are judges of singing, but every one is sensible of a desire to please.

If you would preserve beauty, rise early.

If you would preserve esteem, be gentle.

If you would obtain power, be condescending.

If you would live happily, endeavor to promote the happiness of others.

To Young Ladies.—In marrying, make your own match. Do not marry any one to get rid of him, or to oblige him, or to save him. The man who would go to destruction without you, would quite likely go with you, and perhaps drag you along. Do not marry in haste, lest you repent at leisure. Do not marry for a home and a living, when by burning up your corsets and taking care of your health you can be strong enough to earn your own living. *Do not* let aunts, fathers, or mothers, sell you for money or position into bondage, tears, and life-long misery, which *you alone* must endure. Do not place yourself habitually in the company of any suitor till you have decided the question of marriage; human wills are weak, and people often become bewildered, and do not know their error till it is too late. Get away from their influence, settle your head, and make up your mind alone. A promise may be made in an hour of half-delirious ecstasy, which must be redeemed through years of sorrow, toil and pain. Do not trust your happiness in the keeping of one who has no heart, no head,

no health. Beware of insane blood. Do not rush thoughtlessly, hastily, into wedded life, contrary to the counsel of your best friends. Love can wait; that which cannot wait is something of a very different character.

Attentiveness.—How much more we might make of our family life, of our friendships, if every secret thought of love blossomed into a deed! We are not now speaking merely of personal caresses. These may, or may not, be the best language of affection. But there are words and looks and little observances, thoughtfulnesses, watchful little attentions, which make it manifest, and there is scarcely a family that might not be richer in heart-wealth for more of them.

It is a mistake to suppose that relations must of course love each other because they are relations. Love must be cultivated, and can be increased by judicious culture, as wild fruits may double their bearing under the hand of a gardener; and love can dwindle and die out by neglect, as choice flower-seeds planted in poor soil dwindle and grow single.—*Atlantic.*

Conversation.—There are many talkers, but few who know how to converse agreeably. Speak distinctly, neither too rapidly nor too slowly. Accommodate the pitch of your voice to the hearing of the person with whom you are conversing. Never speak with your mouth full. Tell your jokes, and laugh afterwards. Dispense with superfluous words—such as, "Well, I should think."

The woman who wishes her conversation to be agreeable, will avoid conceit or affectation, and laughter which is not natural and spontaneous. Her language will be easy and unstudied, marked by a graceful carelessness, which, at the same time, never oversteps the limits of propriety. Her lips will readily yield to a pleasant smile; she will not love to hear herself talk; her tones will bear the impress of sincerity, and her eyes kindle with animation as she speaks. The art of pleasing is, in truth, the very soul of good breeding; for the precise object of the latter is to render us agreeable to all with whom we associate—to make us, at the same time, esteemed and loved.

We need scarcely advert to the rudeness of interrupting any one who is speaking, or the impropriety of pushing, to its full extent, a discussion which has become unpleasant.

Some men have a mania for Greek and Latin quotations; this is peculiarly to be avoided. It is like pulling up the stones from a tomb wherewith to kill the living. Nothing is more wearisome than pedantry.

If you feel your intellectual superiority to any one with whom you are conversing, do not seek to bear him down; it would be an inglorious triumph, and a breach of good manners. Beware, too, of speaking lightly of subjects which bear a sacred character.

It is a common idea that the art of writing and the art of conversation are one; this is a great mistake. A man of genius may be a very dull talker.

The two grand modes of making your conversation interesting, are to enliven it by recitals calculated to affect and impress your hearers, and to intersperse it with anecdotes and smart things.

Ceremonies.—All ceremonies are in themselves superficial things; yet a man of the world should know them. They are the outworks of manners and decency, which would be too often broken in upon, if it were not for that defense which keeps the enemy at a proper distance. It is for that reason we always treat fools and coxcombs with great ceremony, true good breeding not being a sufficient barrier against them.

The Art of being Agreeable.—The true art of being agreeable is to appear well pleased with all the company, and rather to seem well entertained with them than to bring entertainment to them. A man thus disposed, perhaps may not have much learning, nor any wit; but if he has common sense, and something friendly in his behavior, it conciliates men's minds more than the brightest parts without this disposition; and when a man of such a turn comes to old age, he is almost sure to be treated with respect. It is true, indeed, that we should not dissemble and flatter in company; but a man may be very agreeable, strictly consistent with truth and sincerity, by a prudent silence where he cannot concur, and a pleasing assent where he can. Now and then you meet with a person so exactly formed to please, that he will gain upon every one that hears or beholds him; this disposition is not merely the gift of nature, but frequently the effect of much knowledge of the world, and a command over the passions.

Artificial Manners.—Artificial manners, and such as spring from good taste and refinement, can never be mistaken, and differ as widely as gold and tinsel. How captivating is gentleness of manner derived from true humility, and how faint is every imitation! The one resembles a glorious rainbow, spanning a dark cloud; the other, its pale attendant, the water-gall. That suavity of manner which renders a real gentlewoman courteous to all, and careful to avoid giving offense, is often copied by those who merely subject themselves to certain rules of etiquette; but very awkward is the copy. Warm professions of regard are bestowed on those who do not expect them, and the esteem which is due to merit appears to be lavished on every one alike. And as true humility, blended with a right appreciation of self-respect, gives a pleasing cast to the countenance, so from a sincere and open disposition springs that artlessness of manner which disarms all prejudice. Feeling, on the contrary, is ridiculous when affected, and, even when real, should not be too openly manifested. Let the manners arise from the mind, and let there be no disguise for the genuine emotions of the heart.

Ill Temper.—A single person of sour, sullen temper—what a dreadful thing it is to have such a one in a house! There is not myrrh and aloes and chloride of lime enough in the world to disinfect a single home of such a nuisance as that; no riches, no elegance of mien, no beauty of face, can ever screen such persons from utter vulgarity. Ill temper is the vulgarist thing that the lowest born and illest bred can ever bring to his home. It is one of the worst forms of impiety. Peevishness in a home is not only a sin against the Holy Ghost, but sin against the Holy Ghost in the very temple of love.—*Theodore Parker.*

AMUSEMENTS FOR THE YOUNG

BY THE PUBLISHER.

[THIS department may seem, to some, out of place in a work of this kind; but it has been the publisher's desire and aim to supply, as far as possible, all of the wants of the family or household. Family parties are often puzzled to know with what games they shall amuse their guests and themselves, and how often, when the younger ones have the company of their playmates, do they go to mamma to know what they can play. It is much more pleasant to see them amuse themselves, than to make little men and women of them before their time. Innocent amusements in the family circle exercise the memory, wit, and intelligence, and when properly regulated are grand helpmates to study. This department is intended to supply them with a selection from the time-honored amusements of our forefathers, with many new games for the older members of the family, in order that they may know how to amuse themselves in a sensible manner. It is our desire that this department may carry to the home circle that spirit of enjoyment which is natural to the young heart, and which should not be absent from the more mature.]

HUNT THE SLIPPER.

This old game will be remembered—in conjunction with blind man's buff—as long as the charming "Pleasures of Memory" are read.

"'Twas here we chased the slipper by its sound,
And turned the blindfold hero round and round,"

says the poet, speaking of his childhood's home.

The game is played thus: The players (who should be many) sit in a circle close together on low stools or on the carpet. In the center of the group stands the one who is to "chase the slipper by its sound."

The players' hands are clasped behind their backs, one of them holding a slipper. The center player, of course, must not know who holds it.

If there are a sufficient number of players, it adds greatly to the fun of this game to make an outer and inner circle. The slipper is passed from hand to hand. At length some one taps with it on the ground, outside the circle. The huntress darts to the place indicated by the sound, but, alas! too late generally to catch it. While seeking it there, she hears it tap the floor in quite an opposite direction, and again darts off on her vain search. It is generally some time before the slipper is caught. When it is, the huntress sits down, and the player from whom she obtained it takes her place.

BLIND MAN'S BUFF.

Choose which shall be the Blind Man, and then tie a handkerchief carefully over his eyes. Stand him in the middle of the room. Then one say to him:

"How many cows has your father got?"

He answers, "Three."

"What color are they?"

"Black, white, and gray."

"Then turn around three times, and catch you may."

The game then is to avoid being caught by the Blind Man. A good deal of fun is made by touching him on the back, arms, legs, and so on. As soon as one is caught, that one becomes the Blind Man. This game can also be played in the gardens or fields.

HIDE AND SEEK.

A handkerchief, or some other trifle, is concealed by one player, and the rest attempt to find it. The one who discovers it takes the next turn to hide

the article. It is customary for the one who hid the article to encourage those who approach it, by telling them that they are warm, warmer, they burn, etc., and to warn them of their departure from it by saying that they are cool, cold, or freeze

BEANS ARE HOT.

This is a hiding game. One player goes out of the room; the others hide something, previously chosen for the purpose. It may be a fan, a ball, a card, a key, etc. When they have hidden it, they call their friend in, by saying at the door:

"Hot beans and melted butter!
Please, my lady, come to supper."

She instantly begins her search for the hidden thing, in the curtains, under the hearth-rug, in the piano—everywhere, in short. When she approaches the right spot, the hiders cry, "Hot beans!" When she moves away from it they cry, "Cold beans!"

If she finds the concealed article, she hides it next time herself. If she gives up the search, she pays a forfeit.

Sometimes a whole party go out of the room, and one remains in it to hide the chosen object they are to seek.

When they return she watches them and call out who is "hot" or "cold" by name, as, "Charley is growing warm," "Henry is quite hot," "Oh, now, Mary, you are so cold!"

"Hot" means near the hidden thing; "cold," a great way off.

ORANGES AND LEMONS.

Two of the tallest players go aside and settle which of the pair shall be called "Orange," and which "Lemon;" but their respective names must not be known to the others.

Then they join hands, and raising their arms as high as they possibly can, sing:

"'Oranges and lemons,'
Say the bells of St. Clement's.
Here comes a candle to light you to bed,
And here comes a hatchet to chop off your head."

While they sing, the other children, holding each other round the waist, run under their upstretched arms. At the word "head," which they manage to sing just as the last child of the train passes, they drop their arms and catch her round the neck. She is then taken on one side and asked in a whisper whether she will be an orange or a lemon. If she chooses an orange, she is told to go behind the young girl who calls herself by that name, and to take hold of her by the waist. If she should choose to be a lemon, she is to take hold of the lady so named. But the choice must always be declared in a whisper, or the others would know who was "orange" and who was "lemon." Then the pair re-unite their hands, raise their arms, and begin the chant again, cutting off a head and gaining a follower every time, till not one of the chain of players is left. Every time a child is caught, she has to choose between the orange and lemon, and is sent behind her choice, putting her arms round the waist of the last of the orange or lemon followers.

When all have chosen, it is generally found that each fruit—orange and lemon—has a good train of supporters behind her; though, of course, it will sometimes chance that one has more than the other, as the liking may have set towards either oranges or lemons.

Then the heads of each party join hands and endeavor to pull each other over to the opposite side, the supporters behind strongly pulling their chief back.

Generally, before the struggle takes place, each leader re-arranges her followers, placing the tallest and strongest next herself, the little ones at the end.

The party that can pull over the head or leader of the other party wins.

MY LADY'S TOILET.

To each one of the company is given the name of an article of dress; chairs are placed for all the company but one, so as to leave one chair too few.

They all seat themselves but one, who is called the Lady's Maid, and stands in the center. When the maid calls for any article of dress, the one who has that name instantly rises, repeats the word, and seats herself again directly. For instance, the maid says:

"My lady's up, and wants her dress."

"Dress!" says the one who has that name, rising at the same time she speaks, and sitting down again as quickly.

"My lady's up, and wants her brush."

"Brush!" says Brush, jumping up and repeating her name.
"My lady's up, and wants her handkerchief, watch, and chain."
"Handkerchief!" "Watch!" and "Chain!" say each one of the three, rising together.
"My lady's up, and wants her whole toilet."
When this is said, every one must jump up and change chairs, and as there is a chair too few, of course it occasions a scramble, and whoever is left standing must be Lady's Maid, and call to the others as before.

THE POST.

The party are seated in two rows, facing each other, down the room. One person is left chairless, and becomes postman. He holds a piece of paper and a pencil, and asks each person to take the name of some town or city, American or foreign, which he writes down.

When every one is seated, the postman calls out, "The post is going between Boston and New York," or any other places chosen as names by the players. The moment he speaks, the persons so named exchange seats rapidly, the postman, of course, trying to get one of those seats. When he says, "The general post is going out," everybody changes seats, and in the scramble he manages to get one; but, as there is always one chair less than the number of the players, somebody else is left out, and becomes postman. Any "town" not answering to its name must either pay a forfeit or take the postman's place.

KISS IN THE RING.

Join hands in a ring, a lady and a gentleman alternately; then, the one who is selected to begin the game stands in the middle, and the rest dance round and round, singing:

"Here a young maiden she wants a sweetheart,
Wants a sweetheart, wants a sweetheart;
Let her choose one that she loves best
From all the merry men around."

It is usual to provide the lady with a handkerchief, which she throws at the feet of a young gentleman, who instantly picks it up, and pursues her in and out the circle till he catches her. As soon as he has caught her he brings her into the ring, and the players again dance round and round, singing:

"Here's a couple both married together,
Like father and mother they must agree;
Love one another like sister and brother,
So pray, young couple, come kiss together."

The gentleman then salutes the lady, who joins the ring, leaving the gentleman in the middle. The game goes on as before, only substituting the words "man" for "maiden" and "maids" for "men." This is a merry garden game in the summer time, when the young gentlemen are not too rough

COPENHAGEN.

First secure a piece of tape or twine, sufficiently long to go round the whole company, who must stand in a circle, holding in each of their hands a part of the string. The last player takes hold of the two ends of the tape. One remains standing in the center of the circle, who is called the "Dane," and who must endeavor to slap the hands of one of those who are holding the string, before they can be withdrawn. Whoever is not sufficiently alert, and allows his hands to be slapped, must take the place of the Dane, and, in his turn, try to slap the hands of some one else.

QUESTIONS AND ANSWERS.

All take partners, and sit opposite each other. Then one person whispers a different question in the ear of each on one side of the room, and another gives an answer to each on the opposite side. The first couple commence. One asks the question whispered to him, his partner gives the answer whispered to her. Each couple take turns in giving the questions and answers. A lady should direct the gentlemen, and a gentleman the ladies. Each side asks the questions alternately; the side that first asked the questions next making the answers.

PUT IN A WORD.

Some one in the company leaves the room, while those remaining select a word, and then send for the person to return. She must ask some question of the person nearest to her, to which the one spoken to must make a prompt answer, and in answering he must make use of the word selected. Sometimes an acute person will guess the word from the answer given to her first question. Some awkward use or slight emphasis may betray it, but generally she will go to a number, and sometimes to all present, without guessing the

word. In that case (unless some one volunteers to take her place) she must go out again. If she discovers the word, the one by whose answer she guessed it leaves the room, and those remaining choose a word, and the game proceeds as before.

QUEEN ANNE AND HER MAIDS.

The players divide into two parties. One side takes a ball, and draw close together, raising frocks into a "lap" or cover, into which the players put their hands. The ball is given to a player to hold in her lap. She must try to hide it as much as possible, while those whose laps are empty must "make believe," as well as they can, to hold the ball in their raised dresses. This is done by pushing the dress out with the hand, etc. When the ball has been concealed, the players advance to those waiting on the other side of the room, and sing:

"Queen Anne, Queen Anne, she sat in the sun,
As white as a lily, as grave as a nun;
She sends you these letters, and begs you'll read one;
If you guess our secret, 'twill be great fun."

The other players answer:

"Good fortune the gracious Queen befall,
I ask Amelia [or whatever the name may be] to give me the ball."

If her guess is mistaken, the maids of honor sing:

"The ball is ours; you guess not well,
Nor can our lady's secret tell;
So sit like gipsies in the sun,
While we, fair ladies, go and come."

Then they return to their places, and transfer the ball to another playfellow.

When the guessers fix on the right person, the ball is transferred to them, and the parts are reversed, while the ball-holder has to pay a forfeit.

SPAT THEM OUT.

All the girls in the party arrange themselves behind chairs, sofas, ottomans, etc., all the boys being sent out of the room; one girl stands as doorkeeper. Some girl then calls out the name of a boy whom she wishes to take the seat in front of her, or two or three can send at once; the doorkeeper opens the door and calls out the name. The boy called enters, and the door is shut. He looks all around, wondering who has chosen him, and finally takes a seat. If he happens to sit down in front of the girl who called his name, she kisses him, and he keeps his seat; but if not, as is most likely to be the case, they all clap him out, and away he goes. Another is then chosen, and the same thing is gone through. Sometimes a favorite boy will be called in a number of times before he guesses correctly. When all the girls have taken their turn in calling, they leave the room, and the boys take their stand behind the seats and the girls are called in.

We were present at a children's party where this game was played. When it became the boys' turn to call, one little fellow cried out, "Say, boys, less we kiss the girls, right or not; then, if they are wrong, we can clap them out afterwards, and not lose our chance." We were amused to see how eagerly the prettiest girls were urged by all to take their seats; if she was a modest child, she would be perfectly bewildered. Some pretended to be angry at the stolen kiss, but we noticed that if called again, only one timid little girl refused the call.

BUZZ.

Promptness is very necessary in this game. Any number of children except seven, both girls and boys, seat themselves around a table, or in a circle. One begins the game by saying "One!" the child on the left says "Two!" and so on till they come to seven, which number must not be mentioned, but in place thereof the word "Buzz!" Whenever a number occurs in which the figure seven is used, or any number into which seven may be multiplied, "Buzz" must be used instead of that number. Such are the numbers 7, 14, 17, 21, 27, 28, 35, 37, 42, etc. Any one mentioning a number with seven in it instead of "Buzz," or calling out of turn, or naming a wrong number, must pay a forfeit. After she has paid her forfeit, she calls out "One!" and so it goes round again to the left. When, by a little practice, the circle gets as high as seventy-one, then "Buzz-one, Buzz-two," etc., must be used, and for seventy-seven, "Buzz-buzz," and so on. If the person whose turn it is to speak delays longer than while any one of the circle can moderately count five, she must pay a forfeit.

TWIRL THE TRENCHER.

The players must sit in a large circle, with a wooden trencher (or a small tin waiter will do), to twirl.

Each player assumes a name or number—numbers are best to call—such as No. 1, No. 2, etc. The first player advances to the middle of the circle, and sets the trencher twirling on the floor. Then she darts back to her seat, calling out No. 3 (or any number she pleases). No. 3 rushes forward, and prevents the trencher (which is flagging, of course) from stopping; then she returns to her seat, calling No. 5 to the trencher rescue.

Any player who, when called, suffers the trencher to fall, must pay a forfeit. If the wrong side of the trencher falls upwards, she must pay *two*.

HUNT THE RING.

All but one stand in a circle. A ring is slipped on a cord, the ends of which are tied together. Each child must then hold her hands tightly over the cord and pass the ring around. One child stands in the center, and blinds her eyes until the ring has commenced passing along and all say "Ready." The child in the center then tries to find the ring. The one under whose hand she finds the ring, must take her place in the center of the circle.

HERE I BAKE, HERE I BREW.

The players form a circle by joining hands, and shut one of their number into the middle of it. The captive touches one pair of joined hands, and says, "Here I bake;" then passing on to two others (generally on the opposite side of the circle), she says, "Here I brew." Then she touches two others, saying, "Here I make my wedding-cake, and here I will go through." Then suddenly she springs on two of the clasped hands which appear least to expect her, and breaks through the circle if she can. But her effort is strongly resisted by the players, who keep her prisoner as long as they can. If she tries three times in vain to escape from the circle, she pays a forfeit. If she breaks through it, the pair whose hands were not strong enough to hold her pay a forfeit each, and another player becomes captive. If this game is played out of doors, or in a large hall, when the captive breaks through she runs around the lawn or hall, until one of the players can catch her. Then the circle forms again, and the one who caught the captive becomes captive. This game continues in the same way until a change is desired.

CHASING THE DEER.

All the players, except one, take hands and form a circle. The one left alone goes around with a handkerchief in her hand, and sings:

"My heart's in the Highlands,
My heart is not here;
My heart's in the Highlands,
Chasing the deer."

Then she suddenly throws the handkerchief at one of the circle, and darts away.

The one at whose feet it falls pursues her, and a grand chase takes place.

When she has caught the deer, the pursuer becomes, in her turn, the animal to be hunted.

The deer should try to drop the handkerchief as slyly as she can, and at the feet of the least watchful of the circle, that she may get a good start.

HOLD FAST, AND LET GO.

This game resembles "Fly away, sparrow." Four little girls or boys each hold the corner of a handkerchief, or anything square. One standing by cries out "Hold fast." They must then promptly drop the corners they are holding. When she says, "Let go," they must be sure and keep hold. Those who fail to do so must pay a forfeit.

I SPY.

All the children who join this game, except one, hide. The player who is left out is blinded until he hears them call "Whoop!" The one blinded then removes the bandage from his eyes, and begins to search for the hidden players. If a glimpse is caught of any one, he calls out, "I spy Mabel," or, "I spy James." The one who is thus discovered must start and run for the place where the other was blinded. If the goal is not reached until the pursuer has touched her, she must take his place. This game is best played out of doors.

FLY AWAY, SPARROW.

All who join this game must gather around a table, and each player must place a finger on the table. When the leader of the game says, "Fly away, sparrow," or any other creature that flies, each player must raise the finger placed on the table. If anything that does not fly is mentioned, and any player raises his or her finger, a forfeit must be given; also if he fails to raise it after the name of a bird or insect that flies.

SHADOW-BUFF.

Shadow-Buff is a variation of Blind Man's Buff. Though not as generally known, it is equally amusing. A large piece of white cloth, or a linen or cotten sheet, is suspended smoothly at one end of the room, at a little distance from "Buffy," who sits with his face toward the cloth, and his back to the company. Behind him a light must be so placed as to throw the shadows of persons passing between it and Buffy directly on the curtain. All other lights must be extinguished. The players then walk, one by one, slowly between the light and Buffy (who must not turn his head), limping, jumping, grimacing, or disguised as they please, so as to distort their shadows on the curtain. If Buffy can tell correctly to whom any shadow belongs (guessing once only at each person), the player whom he so discovers takes his place as Buffy.

BLIND MAN'S WAND.

This is another variety of the same game. The blind man carries a cane, which he reaches in every direction. Whosoever it touches is bound, by the rules of the game, to take hold of it, and repeat whatever the blind man orders. The one who is caught can disguise his voice as he pleases. The blind man is allowed three guesses, and if he cannot discover the person touched by his voice, he must try another. This is an amusing change.

There is still another, called "Fettered Buff." The person who is to catch his companions is not blinded, but his wrists are tied behind him, and he catches by running backward. This form of the game is not recommended. The person so bound cannot balance himself easily, or guard himself, and is liable to injury from falling.

LAWYER.

All who take part in the play assemble and choose a lawyer. The chairs in the room are arranged in two rows, as in a contra-dance. If there are an equal number of gentlemen and ladies, the former choose their partners. The gentlemen take seats opposite the ladies. The lawyer proceeds to ask such questions as he chooses. The person addressed must never answer, but his partner must answer for him. If either makes a mistake, he or she must change places with the lawyer, and ask the questions. If the lawyer is ready in asking questions, turning quickly from one person to another, he can very soon catch some one.

CONSEQUENCES.

This is a quiet game. All assemble around a table. Each person must have a half sheet of note paper and a pencil. All are requested to write an adjective, expressing either a good or bad quality in a man's character. Each one then turns over and creases down the place written upon, and all change papers. Each one then writes a gentleman's name, and turns it down, and all change papers again. Then another word of quality, applying to a lady, is written, and all the papers are turned down as before, and changed as before. Then a lady's name is written; then a place where they met; then what he said to her; then what she said to him; what he gave to her; what she gave to him; then the "consequences." The paper must be turned down every time, and changed, and no one must read what the others have written. When all have finished, some person collects and reads the papers. Some are absurd, and others happen very correctly. For instance, they might read thus: "The clumsy Mr. Snooks met the beautiful Miss Primrose at a ball. He asked her if she liked turnips; she sighed and hung her head, and said, 'If mamma is willing.' He gave her a bouquet; she gave him a box on the ear. The consequences were too sad to relate." A party of merry girls and boys will like this game for variety.

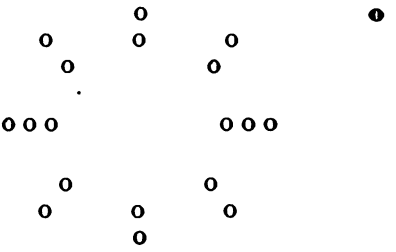
HOW DO YOU LIKE IT? WHEN DO YOU LIKE IT? AND WHERE WILL YOU PUT IT?

The difficulty of this game consists in guessing the meaning of two or more nouns, which sound alike, but have different meanings, without any other help than the answers given to the above questions. It is played in the following manner: One of the company is sent out of the room, and not recalled until her companions have agreed upon two words with similar sound with which to puzzle her. When she comes in she asks, "How do you like it?" One answers, "Very much indeed;" or, "I don't like it early in the morning." Another says, "It is too noisy." Another, "It is too fond of fine clothes," etc. She then asks, "When do you like it?" One answers, "At all times." Another, "When I feel hungry for my dinner." Another, "I want it when walking alone." Another, "When I want some wood brought for my fire," etc. Lastly she asks, "Where would you put it?" One says, "I would hang it." Another, "I would shut it up in a church tower." "I would take it to a ball-room," etc.

From such answers, a witty little girl may guess that *belle* was the chosen word, (belle, a fashionable lady, and bell, an instrument of sound.) Such as do not guess must pay a forfeit. Many words might be chosen for this game, such as hair, hare; reign, rain; date, a fruit, and date, a period of time; whip, to strike with, and whip, to eat; pear, pair; heir, air; ale, ail; mason, a bricklayer, and mason, a member of a secret society; beer, bier; see, sea.

FOX AND GEESE.

This game is a very old one, but it is too good not to be always remembered. Arrange the company in this form:



The circles represent persons (or geese, as they are considered in the game). They must be arranged in the manner shown in the illustration; thus, in twos, and in two places in threes. The player outside the circle is called the fox. The object of the fox is to touch the outside one of three: but when he attempts to touch the outside one of the three geese, the outside goose must dart into the circle and stand inside two of the others. The fox can only touch the one outside of three; if he succeeds, the fox becomes a goose, and the one caught takes the place of the fox. One must be on the alert, and change as quickly as possible. We have seen this game, on a stormy day at the sea-shore, played with great zeal by old gentlemen, judges, lawyers, ministers, mothers, fathers, and children. One gray-haired gentleman was the fleetest fox of all; no one could escape him, and his laugh made all hearts glad. Green old age is beautiful to see, and the youthful are always made happier by its genial sympathy.

CONFIDANTE.

Let each player provide himself with paper and pencil, and write according to the instructions of the leader, commencing with:

"Let each boy write a lady's name; each girl a gentleman's name."
"Now any past time."
"The name of a place."
"Either yes or no."
"Yes or no again."
"Each boy write a lady's name, and each girl a gentleman's."
"Some time to come."
"Write yes or no."
"Yes or no again."
"Mention a place."
"Tell us your favorite color."
"Set down any number not exceeding ten."
"Another color."
"Yes or no."
"Let each write a lady's name."
"Let each write a gentleman's name."
"Each another lady's name."
"Each boy write a gentleman's name; each girl a lady's."
"The name of a clergyman."
"Now any sum of money."
"The name of a place."
"And, lastly, a number."

When all have finished, each player must read aloud what he or she has written, without altering it, in answer to the questions below:

"From whom did you receive your first offer?"
"When was it?"

"Where did this event take place?"
"Does he love you?"
"Do you love him?"
"Whom will you marry?"
"When will it take place?"
"Do you love him?"
"Does he love you?"
"Where does he live?"
"What is the color of his hair?"
"What is his height?"
"What is the color of his eyes?"
"Is he handsome?"
"Who will be the bridesmaid?"
"Who will wait upon her?"
"Who is your sympathizing confidante?"
"Who is your rival?"
"What clergyman will marry you?"
"How much is the gentleman worth?"
"Where will you live?"
"How many servants will you keep?"

In asking the boys the questions, there are a few that will need a slight alteration.

THE GAME OF TWENTY QUESTIONS.

One person thinks of an article or subject, another then endeavors to find out what the thought is; and this is done by asking questions, as to its nature and qualities.

A third person is usually selected as umpire, who is made acquainted with the subject fixed on, and whose duty it is to see that all the answers shall be fair. These answers are not to be such as will be calculated to mislead; although it will be observed that the wider they are from the mark, the more difficult will the guessing be rendered. Twenty questions and three guesses are allowed. We give an illustration of the nature and method of the game.

We will suppose the person has thought of an article, and the questioner thus begins:

"Does it belong to the animal, vegetable, or mineral kingdom?"
"Composed of vegetable material."
"Is it an article of food?"
"No."
"Is it a manufactured article?"
"It was."
"Then it does not now exist?"
"No."
"Did it belong to modern or ancient times?"
"Very ancient."
"Do you allude to any particular thing, or to a class?"
"To one particular thing."
"Was it useful, or merely ornamental?"
"Useful."
"Was it an article of dress?"
"No."
"Was it soft or hard?"
"Hard."
"Was it a piece of furniture?"
"No."
"Was it stationary?"
"No."
"Was it used as a conveyance?"
"Yes."
"By air, earth, or water?"
"Water."
"Was it used for a special purpose?"
"It was."
"Was it made before the flood?"
"Yes."
"Then it must be Noah's Ark."
"You are right—and guessed it with fifteen questions."

CRYING FORFEITS.

A player is to kneel at the feet of one of her companions, who has all the forfeits placed beside her. The kneeling player, who is to name the means of ransom, hides her face on the lap of her playmate, who holds each forfeit over

her head, and says, "Here is a thing, and a very pretty thing; what must be done by the owner of this pretty thing?"

The judge answers, "Is the owner a lady or gentleman?"

If the answer be a lady, she is to give a lady's forfeit; if a young gentleman, a gentleman's; or the cryer may hold up two or more forfeits at a time, and say, "Here are several things, very pretty things; what shall their owners do?"

The judge must then inflict one of the double forfeits. These are generally more amusing than the single ones, and pleasanter for shy players.

We give a few forfeit ransoms for use, but they may always be invented and ordered by the kneeling judge. If the crier cannot remember the forfeits, she may put the book in her friend's lap, and read them; the forfeits being held by another person behind her.

RANSOMS FOR FORFEITS.

1. The lady is to ask everybody in the room to do her a favor. If each person grants it, she may reclaim her forfeit. The favor she asks may be as absurd as she pleases. She may ask her friends to sing a song; ask a riddle, bark, whistle, dance, sing, etc., etc.
2. She is to answer three questions without smiling, however absurd they may be.
3. She is to acknowledge whether she admires herself or not.
4. To curtsey to everybody around the room without smiling.
5. She is to sing a song.
6. To kiss her sister rabbit-wise, (or, if she has no sister, a friend.) This is done by each little girl taking an end of the same piece of string into her mouth, and nibbling it up till their lips meet. The string must on no account be let drop by either player.
7. To kiss her sister back to back. This is done over the shoulder.
8. To guess who feeds her with water. A glass of water and a spoon are brought; she is blindfolded and seated in a chair: every person in the room gives her silently a tea-spoon of water. She guesses each time who feeds her and is only released when her guess proves correct.
9. To walk around the room with an envelope held between her lips standing before each person while he or she can count "three." If she drops the envelope, she must begin again.
10. Make a speech in *dumb show*.
11. She must answer "No" to twenty questions. She may choose who shall ask them.
12. To stand in the corner till some one prevails on her to come out, though she must only answer "No" to every entreaty.
13. Walk the room, and kiss your own shadow without laughing.
14. She is to have her choice—blindfolded—of a kiss, a pinch, or a slap To do this, the forfeit-holder is blindfolded; one of her companions makes mute signs of a kiss, pinch, or blow, and asks her which she will have. As she chooses ignorantly, she may find that she has asked for a pinch or a slap but they are of course always kindly given. A pinch of sugar is generally offered for the former; the slap is merely a slight touch.
15. To redeem a double forfeit. For two players across the room. Shake hands with any one named by the forfeit-holder, blindfold. This is a very amusing forfeit. *both* the players are blinded, and have of course great difficulty in meeting Their companions must watch that they do not hurt themselves in the attempt. It is by no means easy to shake hands under such circumstances.
16. Answer five questions without saying "Yes" or "No."
17. Each person in the room is to address a line of poetry to the forfeit payer. She must add another to it which will rhyme.
18. She must march three times round the room with a book on her head without dropping it.
19. Make a wise speech.
20. To bite an inch off the poker, (*i. e.*, the poker is held an inch off, and she kisses the air.)
21. To hold the candle, and beg somebody to kiss the candlestick. This done, she is released. She is herself the candlestick.
22. She is to walk blindfold around the room, and seat herself on any player's lap whom she chooses; she then tries to discover who her chair is, by touching her face and dress. If she guesses rightly, her forfeit is restored. The players try, of course, to hide their identity as much as possible, by altering their dress, hair, etc., to puzzle her.
23. To be put up at auction and bid for. When the forfeit-crier is satisfied with the price offered, she returns the forfeit.
24. Feed the kittens. The players all remain in their places, and the two who have to feed the kittens go round, one with a saucer of milk, the other

with a tea-spoon, with which she gives a sip of milk to every person, saying, "Take that, my pretty puss!" to which, after taking it, "Puss" must gravely answer, "Mew!"

25. To bow to the prettiest, kneel to the wittiest, kiss the nearest, and make a speech to the dearest.

26. To candidly acknowledge whom he loves best in the world.

27. The gentleman is to go to three ladies in the room. To the first he must make a speech on the fashions; to the second, on the prettiest shape of bonnets; to the third, on the income-tax.

28. To be fed as a baby by the other players—*i. e.*, she is seated in the middle of the room, wrapped up in a sheet; the others bring a custard, a cup of tea, and a glass of wine, and feed her alternately with a tea-spoon, saying, as they do so, "Sweet baby!" No laughing allowed.

29. To pet the kittens without smiling. For a boy: He goes round and says to every lady, "Poor puss!" to which she must gravely answer, "Me-ew! Me-ew!"

30. To sit down on the carpet, and get up without touching anything.

31. Dance in one corner of the room, sing in another, curtsey in the third, and weep in the fourth.

CROQUET.

This out-door pastime is of comparatively modern creation, and is every day becoming more in vogue. It may be played by persons of all ages and of either sex; but it is especially adapted for ladies and young persons, as it demands but trifling personal exertion, while it affords delightful and health-giving sport.

The ground upon which croquêt is played is preferably a grass-plot of an oblong form; but an ordinary lawn or expanse of even turf will answer the purpose, so long as it is of sufficient extent for the operations of the game.

The implements for playing croquêt are the balls, the mallets, the starting and turning pegs, the croquêt clips or markers, the hoops or arches. These may be obtained at the ordinary toy warehouses.

Arrangement of the Hoops.—As much of the interest of this game depends upon the arrangement of the hoops, it is essential that they should be fixed in the ground on definite principles. In the first place, the starting peg is driven in at one end of the ground, and the turning peg is driven in at the other extremity. From each of these pegs a space of twelve feet intervenes; here a hoop is fixed; another space of ten feet intervenes, when a second hoop is fixed; a space of eight feet then succeeds, and at this point is formed what may be termed the base, on each side of which, at a distance of twenty feet, and succeeding each other at intervals of ten feet, three hoops are driven in. By this arrangement a square is formed, the starting peg leading into its center, and the turning peg leading from it. Where the ground is small, the distances may be contracted proportionally. Other arrangements of the hoops may be made at the discretion of the players, but the first-named plan will be found best worthy of adoption, as it affords the most excellent opportunities for the display of address and skill.

The game consists in striking the balls from the starting peg through the seven hoops to the peg at the opposite extremity. The balls are then driven back again to the starting peg.

The game may be played by any number of persons not exceeding eight. A larger number protracts the intervals between the several turns, and thereby renders the game tedious. The most eligible number is four. If two only play, each player should take two balls; and when as many as eight play, there should be two sides or sets.

In playing the game, each player takes a mallet, ball, and croquêt clip, of the same color or number, the clip being used to indicate the hoop at which, in his turn, he aims. The division into sides, choice of balls, mallets, etc., is determined by the players among themselves.

Laws of the Game.—In croquêt, as with many other sports when first established, there exist differences of opinion on certain points of practice. We have consulted numerous treatises on the game, and find Jaques's "Laws and Regulations of the Game of Croquêt" to be one of the most practical and straightforward manuals extant. It is to this work that we are mainly indebted for the following laws of the game:

1. On commencing, each player must place his ball within a mallet's length of the starting peg in any direction, and his opening stroke must be to pass through the first hoop.

2. The players on each side are to play alternately, according to the colors on the starting peg, and the order in which they play cannot be altered during the game.

3. Each player continues to play so long as he plays with success, that is,

so long as he drives his ball through the next hoop in order, or croquêts another ball.

4. When a player strikes his own ball so as to hit another at a distance, he is said to roquêt it; and, having thus hit a ball, he must then, as it is termed, "take the croquêt," which is done as follows: He lays his own ball against the other so that the two touch; he then places his foot on his own ball, which he strikes with his mallet; this will drive the ball with a momentum and in a direction most desired. In doing this the player should press his foot on his own ball.

5. A player must move the ball he croquêts. He is said to "take a stroke off" when he places his own ball to touch the croquêted ball very lightly, so as to leave it, when croquêted, in nearly the same position; but in doing this the croquêted ball must be perceptibly moved.

6. No ball can croquêt, or be croquêted, until it be passed through the first hoop.

7. Any player missing the first hoop takes his ball up, and when his turn comes again, plays from the starting place, as at first.

8. A player may croquêt any number of balls consecutively; but he can not croquêt the same ball twice during the same turn, without first sending his own ball through the next hoop in order.

9. Instead of aiming at his hoop or another ball, a player may strike his ball towards any part of the ground he pleases. When he has made a complete circuit from the starting peg back to the starting peg, he may either retire from the game by pegging, or, by not doing so, remain in. In this case he is called a "rover," and will still have the power of croquêting consecutively all the balls during any one of his turns.

10. When a ball roquêts another ball, the player's ball is "dead," and "in hand" until after the player of it has taken the croquêt. Hence it follows that if it cannon from one ball to another, or from a ball through its own hoop, or from a ball on to either of the pegs, none of these subsequent strokes count anything. If, however, a player cannon off a ball which in the same turn he has croquêted, and then runs off it and makes a stroke, that stroke counts.

11. A player whose ball is roquêted or croquêted through its hoop in order, counts the hoop.

12. A player must hit his ball fairly—not push it. A ball is considered to be fairly hit when the sound of the stroke is heard. A ball is "pushed" when the face of the mallet is allowed to rest against it, and the ball propelled without the mallet being drawn back.

13. A player may play in any attitude, and use his mallet with his hands in any way he pleases, so that he strike the ball with the face of the mallet.

14. When the ball of a player hits the starting peg, after he has been through all the hoops, whether by his own play, or by being roquêted (subject to the provisions in Law 10), or by being croquêted, he is out of the game, which goes on without him, his turn being omitted.

15. The clip is placed on the hoop through which the player is next going. The clips are to be changed by the umpire, and are decisive as to the position of a player's ball; but if the umpire forget to change a clip, any player may remind him before the next stroke. Should there be no clips, a player is entitled to ask any other player how he stands in the game.

16. A player stops at the peg; that is, having struck the turning peg in order, his turn is at an end, and even though he should roquêt off the peg, it does not count. When his turn comes round again, he plays his ball from the spot it rolled to after pegging.

17. A ball is considered to have passed through its hoop if it cannot be touched by the handle of the mallet, laid on the ground from wire to wire, on the side from which the ball passed.

18. The decision of the umpire is final. His duties are: To move the clips; to decide when balls are fairly struck; to restore balls to their places which have been disturbed by accident; and to decide whether a croquêted ball is moved or not, in doubtful cases.

TERMS USED IN THE GAME.—*Roquet*—To hit another ball with one's own. *Croquet*—To strike one's own ball when in contact with a roquêted ball. *Wired*—To have the ball in such a position that the hoop prevents the stroke which is wished to be made. *Peg*—To "peg" is to strike either of the pegs in proper order. *Dismiss*—To "dismiss" a ball is to croquêt it to a distance.

BEE-KEEPING DEPARTMENT.

BY THE PUBLISHER.

NOTE.—We are indebted to the courtesy of H. M. Johnson, of Marshall, Mich., a practical and experienced bee-keeper, who has also published a work upon this subject, called "The Farmer's Guide to Bee-Keeping," which is the best work of the kind that has come to our knowledge. He has kindly permitted us to make such extracts as we saw fit, but our space will not allow us to give full details, but to give enough so that any one can understand the general principles, and manage bees quite successfully. If any one wishes a thorough and scientific knowledge of the subject in all its details, and also how to make the various kinds of hives, bee pasturage, etc., etc., Mr. Johnson's book should be in their hands.

FUNDAMENTAL POINTS IN BEE-KEEPING.

There are four fundamental points which render bee-keeping a success, viz., the *man*, the *moveable comb hive*, the *season*, and the *honey machine* or "mell extractor." The operator should be acquainted with and understand the nature and working of the bee to enable him to manage them properly. He should then have a hive that will answer all his needs in every department of bee culture, and in the making of hives should aim at simplicity. The honey machine is acknowledged by all bee-keepers to be the greatest improvement to the science since the invention of the movable comb hive, by the use of which we claim to double and even treble the quantity obtained by the old method.

WHAT CONSTITUTES A SWARM OF BEES.

Every prosperous swarm of bees must contain one queen, several thousand workers, and a portion of the year a few hundred or even thousand drones. We will now proceed to describe the different bees which constitute a swarm, and the labors of each.

DESCRIPTION OF THE QUEEN.

The accompanying cut will illustrate the appearance of this most important member of this industrious colony. The queen is the only perfect female bee in the colony, and hence the name of queen or mother bee. In form she is longer than either of the other species. She is usually of a dark color, except the under side of the abdomen, which bears somewhat on the golden shade. All her colors are bright and glossy, and she has but little of the down or hair seen on the drones or workers. Her wings are short, reaching a little more than half way back. Her posterior is more pointed and, has the appearance of curving under, more than that of the workers. She has a sting, but never *uses* it, except in combat with a rival queen.

THEIR AFFECTION FOR THEIR QUEEN.—The queen is always treated with the greatest affection by the bees. If she is removed from them, the whole colony is thrown into a state of the most intense agitation. All labor is abandoned, and the bees run wildly over the comb, and rush from the hive in anxious search for their beloved mother. If they cannot find her, they return to their desolate home and manifest by their sorrowful tones their sense of this great calamity, as no colony can long exist without the presence of the mother bee.

THE AGE OF THE QUEEN.

The average age of the queen is about three years. None should be allowed to become older than that, as after that age they often become barren, or deposit eggs which produce only drones, and the colony soon wastes away without being replenished with worker broods.

Like the drone, the queen never goes to gather honey, her only duty being to deposit the eggs, both male and female. Yet she is as dependent on the workers as they are upon her, and both are dependent upon the drones, notwithstanding they are the acknowledged idlers of the colony.

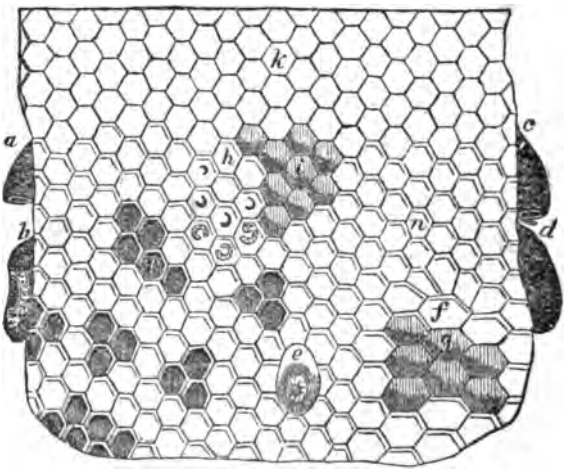
DEPOSITING THE EGG.

Ovaries of a Queen Bee.

In all well populated hives young broods may be found in different stages of development, every month in the year, with few exceptions. The queen carefully examines each cell by thrusting her head in, before depositing the egg, to see if it contains bee bread or honey, as she never uses a cell partly filled. If she finds the cell clear, she immediately curves her abdomen and inserts it. She remains but a second or two, and then leaves the cell, when an egg about a sixteenth of an inch long may be seen attached to the base of the cell, usually a little to one side.

HATCHING.

The eggs remain unchanged for three or four days. They are then hatched, the bottom of each cell containing a small white worm, which floats in a whitish transparent fluid, which is deposited by the nursing bees, and by which it is probably nourished. It gradually enlarges until its two extremities touch, which forms a ring. It continues to increase during five or six days, until it occupies the whole breadth and nearly the length of the cell. The nursing bees now seal over the cell with a light brown cover. As soon as the larvæ is perfectly enclosed, it begins to line the cell by spinning around itself a silky cocoon. When this is finished it undergoes a great change, from the grub to the nymph or pupa state, and



Section of Comb, showing Honey, Bee Bread, Brood and Queen Cells, in their different stages.

(*k*) Represents comb filled with honey; (*h*) represents the brood in all stages; (*i*) represents cells containing bee bread; (*g*) represents drone brood sealed; (*a*) represents sealed brood; (*a*) represents an old queen cell where a queen has formerly hatched; (*b*) represents a cell where the queen was killed by violence before hatching; (*c*) represents where a queen has hatched recently; (*d*) represents a perfect queen cell; (*e*) represents a queen cell just started, with a grub about five days old.

not bear a vestige of its previous form. It has now attained its full growth, and the large amount of nutriment taken serves as a store for developing the perfect insect.

Queens are reared from eggs that, if deposited in worker cells, would produce worker bees, but by larger cells and royal jelly queens are developed. The time required to raise a queen is three days in the egg, and five days as a worm, and on the sixteenth day she has attained the perfect state of a queen bee. The working bee comes forth perfected in twenty-one days from the time the egg is deposited. The drone takes twenty-four or twenty-five days.

IMPREGNATION OF THE QUEEN.

It is acknowledged by all apiarians of the present day, that the art of copulation takes place high up in the open air, and usually between the fourth and tenth days after leaving the cell. If fertilization does not occur before she is twenty days old it never takes place, and the eggs deposited will only produce drones.

THE WAILINGS OF THE QUEEN.

The queen has two notes; one of defiance, called piping; the other is a note of fear, a plaintive, pitiful wail, mournful in the extreme, and lingering long in the memory when once heard. This mournful note is set up when removed from their hive, when seized by the other bees to destroy her life, or when her colony are starving. Whenever this note is heard turn not a deaf ear, but immediately respond to the call, for there is something wrong. Rigidly examine the hive and remove the cause of complaint.

An unimpregnated queen is called a "virgin queen." They are capable of laying only drone eggs. A fertile queen is one which has mated with a drone, and is capable of laying eggs which may become either workers, drones, or queens. A barren queen is one who has passed the stage of laying eggs, that will become either workers or queens, but continues to lay eggs which produce only drones. The period of fertility lasts from two to three years, and cannot be depended on longer safely. All such queens should be destroyed and fertile ones introduced, that the colony may not become extinct.

WORKER BEE.

The annexed cut represents the worker bee, a very important member of the colony. They constitute the mass of the colony, and upon them devolve all the labors of the hive. They gather the honey and pollen—the food for the young. They nurse and feed the young brood, and defend their house against invasion of enemies. The care which the workers bestow upon their nurslings is wonderful, and they manifest the most tender attachment for them. The slightest movement of these nurses approaching to administer to the young brood is sufficient to attract them to their food which they devour voraciously, and it is unsparingly administered. After the cells have been sealed up they seem to cease from anything like attention, although if the brood comb is meddled with, their utmost ire is kindled. Bees reared in the spring and early summer are shorter lived than those reared later in the season. Each worker is armed with a formidable sting, and when disturbed does not hesitate to use it. The extremity being barbed, the bee can rarely withdraw it, and in losing her sting she looses her life and dies in defending her home and sacred treasures.

DRONES.

We herewith present a representation of the drone of the colony; the "gentleman of leisure," who leads an easy life, taking no thought of the morrow. They toil not; neither do they spin, but let others bear the heat and burden of the day. They differ from the queen and worker in form and structure, and are of a darker color and less active. They have no proboscis for gathering honey; no basket for pollen; no sack for wax; and no sting to defend themselves with. They seem to be a necessary evil, consuming the fruits of the labor performed by others. Yet without them the brood would soon become extinct. Microscopic examination shows that they are the males of the bee family, and in the performance of the functions appointed to them, they invariably yield up their life. The duties devolving upon them are to accompany the young queens upon their bridal tour. In the performance of the same their life

becomes the sacrifice. In July and August if there seems to be a prospect of a short supply of honey, the laborers set up a vigorous persecution, driving them from or into a corner of the hive, and when through hunger and captivity, they become weakened, and being without a sting, unable to defend themselves, they fall helpless victims to their fearful onslaughts. They rush upon them and sting them with such fury that they die at once. They seize them by their wings and gnaw them in such a manner as to prevent their escape by flight, and crawling off death overtakes them.

THE ITALIAN OR LIGURIAN BEES

Are conceded by all to be far superior to the black bee above described, although they do not differ essentially in conformation; yet for profit and amiability are a great improvement. In color, they are a beautiful golden hue. The worker when pure has three distinct bands about the body; the color and bands being the test of purity. The queens are more fertile and prolific, depositing their eggs earlier in the season; swarm oftener and earlier when not interfered with; protect themselves from robber bees and moths more effectually; carry in more honey, gathering from the small variety of red clover and some other plants whose cells are so deep that the common bee cannot reach the nectar distilled in the bottom of the flower cups; will not sting upon as slight provocation, and can be handled more easily. They are stronger, and more hardy, and live longer, although performing more labor. They are also more industrious, often going to the fields in very unfavorable weather.

TO PRESERVE PURITY OF STOCK.

Many object to Italian bees from apprehension of their becoming hybridized on account of black bees being kept in their vicinity; but the fact of their throwing off swarms more frequently and earlier in the season, would easily obviate that trouble. Both queens and drones are more active and agile than the common kind, and from this fact would usually encounter one another; besides the wings of both queens and drones are finer than the common kind, and the sounds produced in flying are clearer and higher-toned, hence, they are readily able to distinguish each other when on the wing.

REARING ITALIAN QUEENS.

All practical Bee-Keepers have a way of their own of rearing queens. I would recommend the use of a small hive or nucleus, as they are termed. They are made about six or eight inches long, five inches wide, and six inches deep, inside measure, with three miniature comb frames each. If your whole apiary is Italianized, and all the bees are the same for an extent of three miles around, there will not be much difficulty in obtaining purely fertilized queens; but if such is not the case, some of the following methods may be adopted to secure the desired result; either the rearing of drones early in the spring, before the black drones make their appearance, or late in the season, after they have been destroyed; otherwise the manner of double working them will have to be resorted to.

If the apiary is large, perhaps the last named method would be the most practicable; as it would be almost impossible to obtain the desired results by either of the others, unless in the hands of an experienced operator. The manner of double working them is very simple. It is merely raising all the queens you may desire for the whole apiary, from a queen of undoubted purity, and let the young queens mate as they will with black or Italian drones. According to the theory adopted by myself, and the majority of bee-keepers, the drones of the young queens will be pure, while the workers of a queen fertilized by the black drone will be hybrides. From this theory, it is evident that the drones of your apiary the following spring will be Italian, and you have only to proceed and raise another set of queens from the same old one, (or what would be better, from a new queen from another apiary,) which would produce a cross, and prevent in and in breeding. If any of the queens of the second year's raising do not produce workers of undoubted purity, namely, those with three distinct bands on the abdomen, she should be replaced by another, until the desired purity is attained. It is not necessary to make much preparation for queen-raising until the drones begin to make their appearance, as they should be, at least two weeks old, at the time the queen sets forth on her bridal tour. When the proper time arrives to prosecute your labors, the nuclei should be stocked with combs in the frames, and a little honey, about one or more frame full, in order that the bees may concentrate their labors on the queen cells, instead of being obliged to store their hive with honey. To insure success, it is also necessary to have some brood in the nuclei to retain the bees, and keep them on the increase, and not allow them to diminish in numbers; for the nuclei

should be kept well stocked with bees. The brood should be over seven days old, from the time the egg was deposited: so that the bees will not construct queen cells from brood that you do not wish to use. To procure the bees and comb, it is best to obtain the hive from a distance of two or three miles; drive out the bees into a box, as in transferring, search out the queen, divide the combs, and put them in the nucleus; then put into each nucleus at least one quart of bees, without a queen. A good swarm in May will furnish bees enough for about five nuclei; while in June, sufficient may be obtained for ten. The bees in the nucleus should be confined, with a little ventilation, for from twelve to twenty-four hours, and if the night is cool, should be covered or carried into a room, so that their brood may not become chilled.

The nuclei should be placed promiscuously about the yard, so that when the queen makes her flight, she may return safely to her home and not enter another, and in the mistake lose her life. The bees for the nucleus may be obtained from your own yard, in which case it will be necessary to confine them for at least three days, that they may not return to their old habitation, when set at liberty. If it is desired to put the brood that you wish to have queens reared from, into the nucleus, at the time of putting the bees in, it can be done if done quickly, that it may not become chilled in the process; or it can be put in at the time they are allowed to fly out. I prefer the plan advocated by Mr. Alley, that is, to introduce your best queens, or those you wish to rear from, directly into the nucleus, and change combs from them, when there are eggs deposited there, to others from which to rear queens. In all cases to raise large, strong, fertile queens, I think it best to introduce the brood into the nucleus before the eggs hatch; as, in that case, the larva is fed upon the royal jelly from the time the egg hatches, until it is sealed over, and therefore would receive more than a grub that is well advanced. When the brood is given to the nucleus, the bees will often start several queen cells from it, and in from ten to fourteen days some of the cells will hatch. Just before they do, all the cells but one may be removed, and placed in other nuclei, or in hives that have been queenless for at least twelve hours. This is much safer than to allow them to hatch, and then attempt to introduce a virgin queen to a hive or nucleus, as they will rarely receive a queen until after impregnation takes place.

During the months of June, July, and August, if the weather is pleasant, the queen will invariably come out to meet the drone on the fifth day after leaving the cell, and in two or three days she will commence laying eggs. She should be removed from the nucleus after impregnation takes place, and before she commences to lay, if it is desired to rear another queen in the same nucleus. If she is allowed to commence laying before being removed, the bees will, after her removal, begin to construct queen cells from the eggs laid by her, in which case, it would be necessary to keep the nucleus queenless for five days, or introduce a cell just ready to hatch within twelve hours after removing the queen.

INTRODUCING THE QUEEN.

The proper time for removing the black queen, is the middle of the day—great care being taken not to alarm the bees when the frames are removed. Smoke, or even sudden jaring, will cause the queen to seek the bottom of the hive, or some other place of refuge. Carefully raise off the top, without jarring the hive and alarming the bees, near you place an empty hive in which to put the frames as you take them out, examine carefully the combs in the centre or those first filled with brood; and if the bees are not disturbed, they will be spread evenly over the surface, when the queen will be easily recognized, and can be picked up with the fingers. If the bees become alarmed, the queen being the most shy and retiring, will seek to conceal herself by hiding in a mass of bees, in the corners of the hive, or anywhere, that she may be out of sight, when a close scrutiny will be needed to discover her. If you do not succeed in finding her, return the entire mass to the hive, and make the effort at some future day; or divide the swarm, putting one-half the contents in the empty hive, and, if possible, the greatest number of bees. Separate the combs in each putting in only half the number, or even less would be preferable.

In a few minutes the bees will become quiet, and the queen will leave her hiding-place, her locality being readily detected by the quietness of the bees near her, and their restlessness on the other combs. The combs must now be returned to the hive in the position they occupied before being removed. When the bees are returned to the hive destitute of a queen, they will at once commence operations to remedy the defect, by converting some of the worker larvæ into queens, which can only be done before the seventh day, as at about that time all the eggs left, have passed the stage when it will be possible to change them thus.

The combs must be again removed, and all royal cells that contain larvæ

cut off, as the safety of the new queen depends greatly on their entire removal. Mr. L. A. Aspinwall gives a very simple and easy process; that of "immersing the queen in a little honey, slightly warmed, if necessary, and dropping her among the bees, they immediately commence licking her off, and forget that she is a usurper.

THE HIVE.

SIMPLE MOVABLE COMB HIVE.

Next in importance to the bees is the hive, and as the whole land teems with bee-hive sharks who are continually introducing their worthless wares on the ignorant and innocent bee-keeper; and I am compelled to say that 99 per cent are entirely valueless as bee homes. I believe it is generally conceded by practical Apiarians that the Rev. L. L. Langstroth has accomplished more to advance the science of apiculture in the introduction of the moveable comb frame than the combined ingenuity from the first introduction of hives to the present time. It has never been my good fortune to obtain a movable comb frame so cheap and simple, and at the same time so easily removed from the hive as the Langstroth frame. A good hive should possess the following points, viz.: 1st, cheapness; 2d, simplicity; 3d, durability; 4th, as good for winter as summer; 5th, that the combs may be removed without injuring or irritating the bees; 6th, that the bees may have free access to the surplus honey arrangement; 7th, that the surplus honey may be removed without injuring or irritating the bees and be in a marketable condition; 8th, that the bees may be able to store every ounce of honey they can collect; 9th, completely ventilated that the bees may not suffocate, and thousands of them hang on the outside of the hive for air in a hot day; 10th, that all the heat from the hive may enter the surplus honey boxes or chamber, to enable the bees to elaborate wax and make comb 11th, that in case the bees are carrying in honey very rapidly, one set of boxes may be raised and another set placed under them; 12th, that there be no place in the hive where the miller moth can conceal itself; 13th, that there be no space between the top of the combs and bottom of the honey boxes except a single quarter of an inch; 14th, that the bees may enter the surplus honey boxes from any part of the hive without creeping through a hole in the honey board; 15th, that all openings of the hive be guarded with a slide or button; 16th, that the boxes be covered with a light cap to exclude the chilly air at night as well as the excessive heat of the noonday sun, with a ventilation at each end to be opened on hot days and allow a current of air to pass over the honey boxes, permitting the excessive heat of the hive to escape in summer, and in winter to carry off the moisture generated by the bees.

THE APIARY.

The next thing in importance is the location of the apiary. Select if possible a sheltered place, shaded somewhat by trees, with an eastern or southern aspect, where they can be easily seen or heard from the house during swarming season. As regards the distance between the stands, it should be as great as circumstances will admit—two feet being the nearest they should be placed.

STANDS FOR HIVES

Is a subject to which too much attention cannot be given. Placing them several feet above the ground makes an unnecessary labor for the bees returning weary and heavy laden, with barely strength to reach the hive, they alight upon the ground, and if toward evening when cool and damp, often perish. Other have no projection from the entrance upon which to alight, but expect them to fly direct from the field into the hive, without making a pause.

PROCURING BEES TO STOCK AN APIARY.

It is presumed that a beginner desires to obtain a quantity of bees for an apiary. He has the location selected; has obtained, what appears to him, the best hive, and now it remains to procure occupants for those hives. He may purchase a colony that threw off a swarm the year before, as then he would be quite sure of getting a young queen; where is, if the stock is of the current year, he would very probably have an old one, and in one or two years discover, to his great surprise, that his swarm was gradually decreasing in numbers, with a fair prospect of being utterly lost; or, should there be a swarm thrown off accompanied by the old queen, as is usually the case, the new one would in a short time dwindle down to a mere handful of bees.

The best method in all cases, therefore, is to purchase the best stocks, those containing a large number of bees, a good supply of honey, and that these bees are sufficient to cover almost the entire comb. Before purchasing, be sure that there is no diseased brood occupying the cells, and that no swarms have been lost from this cause. If no disease prevails in the hives, then old stocks are not objectionable, as, if they swarmed the previous season, they have the young queens, who are more prolific than the old ones, who always accompany the first swarms; and as long as they remain healthy are as prosperous as the young swarms.

SWARMING.

The swarming season in this latitude sometimes commences as early as the 15th of May, and at other times as late as the 1st of July. It usually commences about ten or twenty days after white clover comes into bloom. As a general rule, bees swarm for lack of room or want of thorough ventilation inside the hive.

METHOD OF HIVING BEES.

It makes out little difference how they are put into the hive, provided they are all made to enter. One essential thing is to have your hive in readiness. The hives should be stored in a cool place, as bees will enter a cool hive much quicker than one that has stood in the hot sun all day. Place upon the ground under the swarm cluster, the hive with a large piece of board just in front of it, upon which the bees can be poured. If they are to be hived in a box hive, one side should be raised one inch by placing under the front corner two sticks or blocks to hold it up from the bottom board. If in a moveable comb hive, raise the front, if on a movable bottom board, if not, open the entrance as wide as possible. If the swarm has clustered on a small branch or limb, it may be cut off if not detrimental to the tree, and brought down, and the bees shaken off in front of the hive. A knowledge that a new home is found is at once apparent. If any large number linger around the entrance, nearly closing it, you can expedite their progress by gently disturbing them with a small twig. If gentle means do not induce them to enter in a reasonable time and they seem obstinate, a little water sprinkled on them will facilitate operations. Too much water must not be used or they will become so wet that they will not move at all. If you do not wish to cut the limb they cluster on, they may be shaken into a basket. In this event it is well to sprinkle the cluster with a pailful of cold water, (ice water not objectionable) which will cause them to cluster closer, and hardly one will leave the basket. If you get nearly all the bees the first effort, shaking the limb will prevent the remainder from alighting, and will turn their attention to those who have found a home, and are loudly calling them to come. There are many other methods under different circumstances, which our space does not permit us to explain, but which will probably suggest themselves to the bee-keeper.

ALL SHOULD BE MADE TO ENTER.

It is of the utmost importance that all should be made to enter the hive at once. A cluster outside may contain the queen inconsious of a home, and she might depart for the woods. Any small cluster around the hive should be brushed towards the entrance until they are all in. As soon as this is done it is highly important that they be set on the new stand for if the bees have been long on the tree they often send out scouts, and if the bees are left where they are hived often entice them to flee to the woods, otherwise they return to the limb, and being unable to find them return to the parent stock with the few scattering bees left after hiving.

Shade is important, for if the bees do not like their home they will go away, and the heat works much mischief in various ways. The shade should not be too dense.

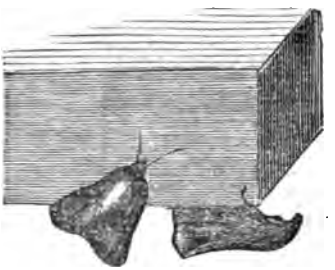
LOSS OF QUEEN.

Every bee-keeper should understand how to detect the loss of the Queen. The following morning after a loss of this kind has occurred, and occasionally in the evening the bees may be seen running to and fro in wild consternation. Towards the middle of the day the confusion will be less marked, but the next morning will be again enacted and after the third or fourth day cease entirely, and apparently they become reconciled to their fate; they continue their labors although they do not manifest the energy or agility seen in a prosperous colony. Some authors say that they will not gather pollen when queenless; but such indications are not always reliable. It is highly necessary that the bee-keeper should glance at every swarm in the morning for a few days after swarming, so that, if any such loss should occur at this time it may be remedied at once by the introduction of a cell, or a fertile queen. In early spring, every swarm should be examined for her presence. In the box hive, a little smoke may be blown in, and the bees driven back; if any brood can be discovered, it is a sure indication that she is there and fertile. In the movable comb hive, it is only necessary to raise out one of the combs in the center of the cluster, and the condition will be recognized at once. If a few imperfect bees are found on the bottom board or in front of the entrance in early morning, it shows that the colony has a fertile queen, and further examination is unnecessary.

WINTERING BEES.

More bees are lost by wintering than by all other troubles combined. To winter them successfully each stock should contain a sufficient amount of honey, bee-bread, and bees. For out-door wintering each hive should contain from 30 to 35 lbs. of honey; in-door 5 to 10 lbs. less. Each hive should have an upward ventillation—it is absolutely necessary.

ENEMIES OF BEES.



There is no enemy so much dreaded as the moth miller. The moth miller represented in the annexed cut is not the one that commits the ravages; it is the progeny, several hundred vile worms that feed upon the comb or wax. The best preventative against the miller is to keep the stock strong and they will not permit her to deposit her eggs upon the comb.

The annexed cut gives a good representation of the worm.

DISEASES OF BEES.

Bees are subject to but few diseases which deserve especial notice. There appear to be but two distinct types to which they are subject in this country, viz.: *Dysentery* and *Foul Brood*, the former of these generally makes its appearance in the spring, and may be known by the bees discharging their excrements over the comb, the interior of the hive, and especially around the entrance; the color instead of being yellow is of a dark muddy appearance and has a sickening, offensive odor, which becomes intolerable. I have never had a case where I gave upward ventillation to the hives; the cause may be ascribed to the moisture in the hive condensing, and mixing with the honey in the cells. Colonies affected by dysentery are usually lost unless warm weather timely intervenes or they are removed to a warm room so that the water in the honey may be evaporated, which will generally terminate the trouble.